

07/31/2003

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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
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NEWS 3 Feb 24 PCTGEN now available on STN  
NEWS 4 Feb 24 TEMA now available on STN  
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NEWS 10 Apr 11 Display formats in DGENE enhanced  
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NEWS 13 Jun 13 Indexing from 1947 to 1956 added to records in CA/CAPLUS  
NEWS 14 Apr 21 New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX  
NEWS 15 Apr 28 RDISCLOSURE now available on STN  
NEWS 16 May 05 Pharmacokinetic information and systematic chemical names added to PHAR  
NEWS 17 May 15 MEDLINE file segment of TOXCENTER reloaded  
NEWS 18 May 15 Supporter information for ENCOMPPAT and ENCOMPLIT updated  
NEWS 19 May 19 Simultaneous left and right truncation added to WSCA  
NEWS 20 May 19 RAPRA enhanced with new search field, simultaneous left and right truncation  
NEWS 21 Jun 06 Simultaneous left and right truncation added to CBNB  
NEWS 22 Jun 06 PASCAL enhanced with additional data  
NEWS 23 Jun 20 2003 edition of the FSTA Thesaurus is now available  
NEWS 24 Jun 25 HSDB has been reloaded  
NEWS 25 Jul 16 Data from 1960-1976 added to RDISCLOSURE  
NEWS 26 Jul 21 Identification of STN records implemented  
NEWS 27 Jul 21 Polymer class term count added to REGISTRY  
NEWS 28 Jul 22 INPADOC: Basic index (/BI) enhanced; Simultaneous Left and Right Truncation available  
  
NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
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FILE 'HOME' ENTERED AT 09:43:19 ON 31 JUL 2003

FILE 'REGISTRY' ENTERED AT 09:43:33 ON 31 JUL 2003  
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STRUCTURE FILE UPDATES: 29 JUL 2003 HIGHEST RN 557055-78-4  
DICTIONARY FILE UPDATES: 29 JUL 2003 HIGHEST RN 557055-78-4

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

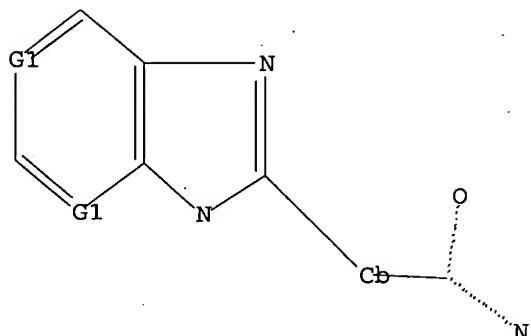
=> Uploading 10019105.str

L1 STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1 STR

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G1 C,N

Structure attributes must be viewed using STN Express query preparation.

=> s 11  
SAMPLE SEARCH INITIATED 09:43:51 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 7584 TO ITERATE

13.2% PROCESSED 1000 ITERATIONS 7 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 146463 TO 156897  
PROJECTED ANSWERS: 624 TO 1498

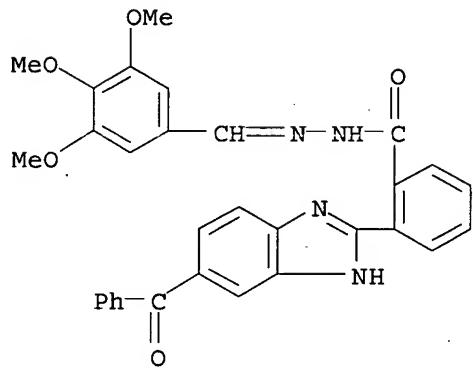
L2 7 SEA SSS SAM L1

=> d scan

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L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
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trimethoxyphenyl)methylene]hydrazide (9CI)  
MF C31 H26 N4 O5



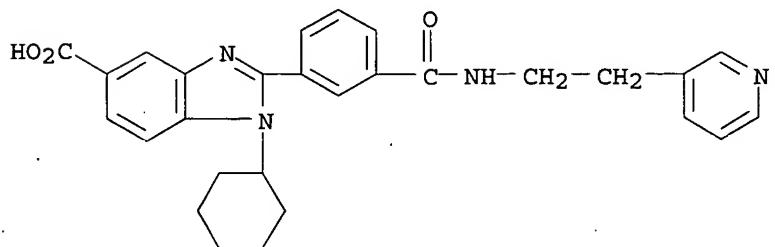
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

07/31/2003

10019105.trn

L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
IN 1H-Benzimidazole-5-carboxylic acid, 1-cyclohexyl-2-[3-[[2-(3-  
pyridinyl)ethyl]amino]carbonyl]phenyl]- (9CI)  
MF C28 H28 N4 O3



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

07/31/2003

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=> s 11 ful  
FULL SEARCH INITIATED 09:46:47 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 151969 TO ITERATE

100.0% PROCESSED 151969 ITERATIONS  
SEARCH TIME: 00.00.08

907 ANSWERS

L3 907 SEA SSS FUL L1

=> fil caplus  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
150.15	150.36

FILE 'CAPLUS' ENTERED AT 09:47:11 ON 31 JUL 2003  
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FILE COVERS 1907 - 31 Jul 2003 VOL 139 ISS 5  
FILE LAST UPDATED: 30 Jul 2003 (20030730/ED)

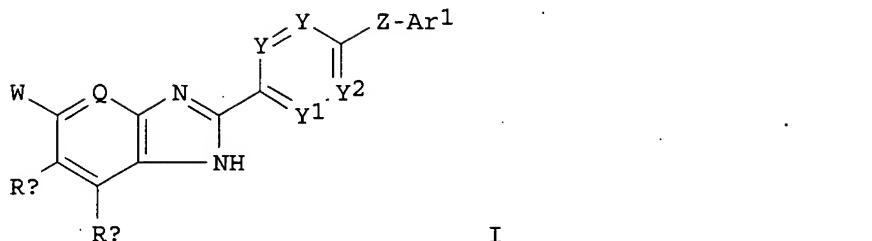
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13  
L4 56 L3

=> d abs ibib hitstr 1-  
YOU HAVE REQUESTED DATA FROM 56 ANSWERS - CONTINUE? Y/ (N) :y

~~GI~~

ANSWER 1 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN



AB 2-Aryl-substituted benzimidazoles and imidazo[4,5]pyridines (shown as I; e.g. 2-[4-(4-chlorophenoxy)phenyl]-1H-benzimidazole-5-carboxylic acid amide (II)) are disclosed as inhibitors of Cds1 and useful as adjuvants to chemotherapy or radiation therapy in the treatment of cancer. For I: W is COOH, -C(O)NHR1, or -SO2NHR1 (R1 is H or C1-4alkyl); Q is N or CH; Ra and Rb are H or halogen; Y, Y1 and Y2 = N and C-Rc with the proviso that 0, 1 or 2 of Y, Y1 and Y2 are N and at least 2 of Rc must be H; Rc = -H, -OH, -C1-6alkyl, -SCF3, halo, -CF3 and -OCF3; Z = O, S, SO, SO2, SO2NR2, NR2SO2, NH, CONR2, piperazinediyl or a covalent bond; R2 is H or C1-4alkyl; Ar1 is an arom. group as defined in the claims. IC50 values are reported for inhibition of human Cds1 checkpoint kinase by 103 examples of I, e.g. 3 nM for 2-[4-(4-chloro-3-trifluoromethylphenoxy)phenyl]-1H-benzimidazole-5-carboxylic acid amide. Addnl. studies were (i) detn. of the effect of II on tumor cell line clonogenic survival, (ii) effect of II on tumor growth in murine xenograft models, (iii) detn. of the effect of 14 examples of I on radiation-induced apoptosis in isolated primary cells, and (iv) detn. of the effect of II on radiation-induced apoptosis in splenocytes in vivo. Although the methods of prepns. are not claimed, apprx. 100 example prepns. are included.

ACCESSION NUMBER: 2003:319709 CAPLUS

DOCUMENT NUMBER: 138:338144

TITLE: Preparation of 2-phenyl benzimidazoles and imidazo-[4,5]pyridines as Cds1/Chk2-inhibitors and adjuvants to chemotherapy or radiation therapy in the treatment of cancer

INVENTOR(S): Arienti, Kristen L.; Axe, Frank U.; Breitenbucher, J. Guy; Huang, Liming; Lee, Alice; McClure, Kelly J.

PATENT ASSIGNEE(S): Ortho-McNeil Pharmaceutical, Inc., USA

SOURCE: PCT Int. Appl., 144 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003032984	A1	20030424	WO 2002-US33371	20021018
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,			

TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-330304P P 20011019

OTHER SOURCE(S): MARPAT 138:338144

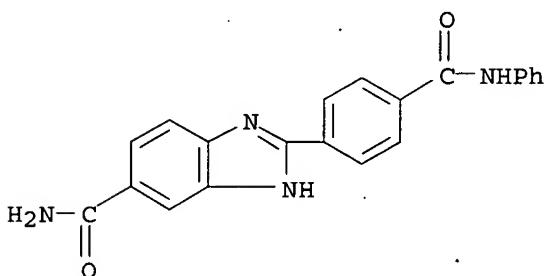
IT 516482-00-1P, 2-[4-(Phenylcarbamoyl)phenyl]-1H-benzimidazole-5-carboxylic acid amide 516482-01-2P, 2-[4-(4-Chlorophenylcarbamoyl)phenyl]-1H-benzimidazole-5-carboxylic acid amide 516482-02-3P, 2-[4-[(4-Chlorophenyl)(methyl)carbamoyl]phenyl]-1H-benzimidazole-5-carboxylic acid amide

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of benzimidazoles and imidazopyridines as Cds1/Chk2-inhibitors and adjuvants to chemotherapy or radiation therapy in treatment of cancer)

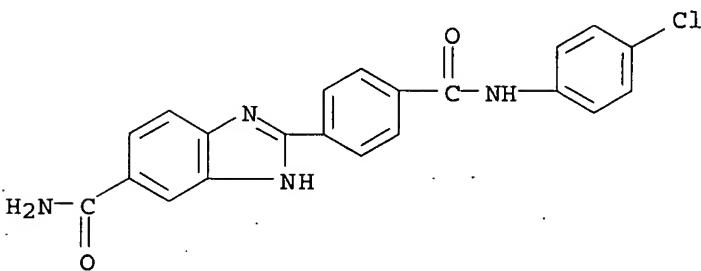
RN 516482-00-1 CAPLUS

CN 1H-Benzimidazole-5-carboxamide, 2-[4-[(phenylamino)carbonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 516482-01-2 CAPLUS

CN 1H-Benzimidazole-5-carboxamide, 2-[4-[[[4-chlorophenyl)amino]carbonyl]phenyl]- (9CI) (CA INDEX NAME)

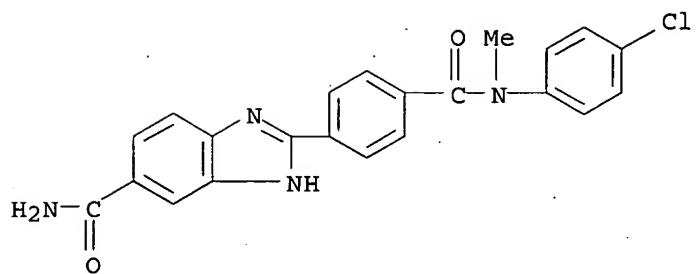


RN 516482-02-3 CAPLUS

CN 1H-Benzimidazole-5-carboxamide, 2-[4-[[[4-chlorophenyl)methylamino]carbonyl]phenyl]- (9CI) (CA INDEX NAME)

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REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

~~GI~~ ANSWER 2 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN

~~X~~\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. I [the dotted line in rings B1 and B2 indicates a single or double bond; G1 = N, CR1; G2 = N, CR2, G3 = N, CR3; G4 = N, CR4; G5, G6, G8, G9 = C, N; G7 = O, S, CR7, etc.; R1-R4 = H, NO<sub>2</sub>, etc.; ring Cy = (un)substituted cycloalkyl ring, etc.; ring A = Ph, cycloalkyl, etc. R5, R6 = H, halo, etc.; X = H, CN, etc.; R7 = H, alkyl] are prep'd. and formulated. Compds. I showed HCV polymerase inhibitory activity (data given). E.g., a multi-step synthesis of II.HCl, starting from 2-bromo-5-nitrotoluene and Me 2-(2-fluoro-4-hydroxyphenyl)-1-cyclohexylbenzimidazole-5-carboxylate, was given.

ACCESSION NUMBER: 2003:203407 CAPLUS

DOCUMENT NUMBER: 138:238181

TITLE: Preparation of substituted 1-cyclohexyl-2-phenylbenzimidazole-5-carboxylic acids as remedies for hepatitis C

INVENTOR(S): Hashimoto, Hiromasa; Mizutani, Kenji; Yoshida, Atsuhiro

PATENT ASSIGNEE(S): Japan Tobacco Inc., Japan

SOURCE: U.S. Pat. Appl. Publ., 406 pp., Cont.-in-part of Appl. No. PCT/JP00/09181.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003050320	A1	20030313	US 2001-939374	20010824
WO 2001047883	A1	20010705	WO 2000-JP9181	20001222
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
JP 2001247550	A2	20010911	JP 2000-391904	20001225
PRIORITY APPLN. INFO.:			JP 1999-369008	A 19991227
			WO 2000-JP9181	A2 20001222
			JP 2000-391904	A 20001225
			JP 2001-193786	A 20010626

OTHER SOURCE(S): MARPAT 138:238181

IT 347169-06-6P 347169-08-8P 347169-09-9P  
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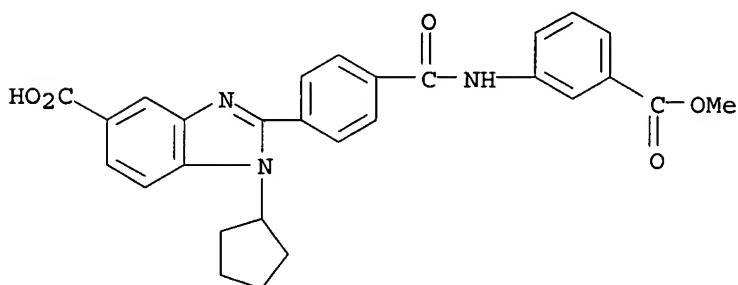
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of substituted 1-cyclohexyl-2-phenylbenzimidazole-5-carboxylic acids as remedies for hepatitis C)

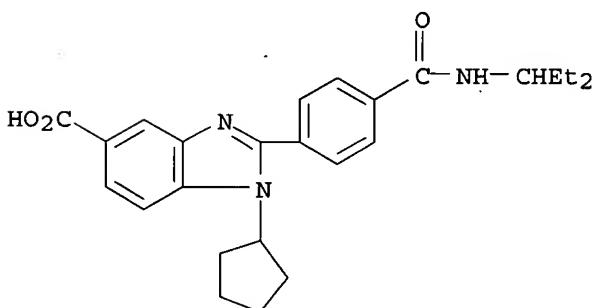
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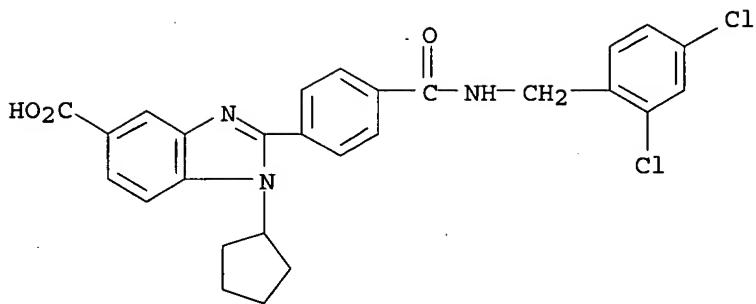
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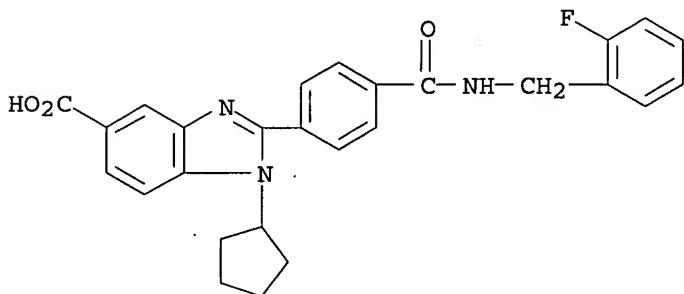
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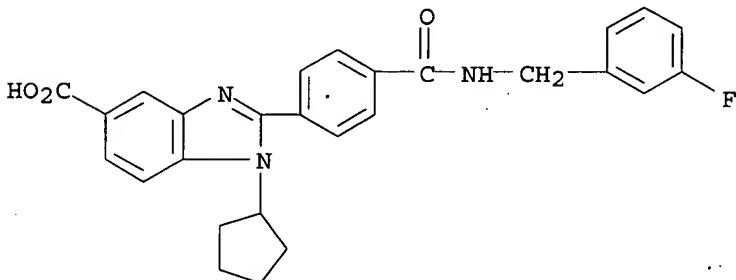
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CN 1H-Benzimidazole-5-carboxylic acid, 1-cyclopentyl-2-[4-[(2-fluorophenyl)methyl]amino]carbonylphenyl]- (9CI) (CA INDEX NAME)



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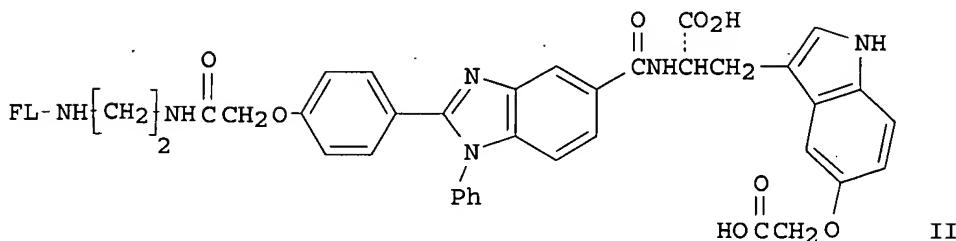
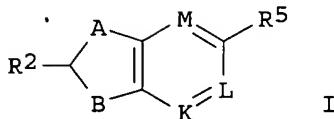
CN 1H-Benzimidazole-5-carboxylic acid, 1-cyclopentyl-2-[4-[(3-fluorophenyl)methyl]amino]carbonylphenyl]- (9CI) (CA INDEX NAME)



RN 347169-12-4 CAPLUS

CN 1H-Benzimidazole-5-carboxylic acid, 2-[4-[(4-chlorophenyl)methyl]amino]carbonylphenyl]-1-cyclopentyl- (9CI) (CA INDEX NAME)

~~14~~  
ANSWER 3 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
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AB A method for identifying compds. binding to hepatitis C virus (HCV) RNA-dependent RNA polymerase is provided. HCV polymerase or an analog is contacted with a probe formula I, wherein A is O, S, N, NR<sub>1</sub>, or CR<sub>1</sub>, wherein R<sub>1</sub> is defined as either a single or a double bond; R<sub>2</sub> is selected from H, halogen, R<sub>21</sub>, OR<sub>21</sub>, SR<sub>21</sub>, COOR<sub>21</sub>, SO<sub>2</sub>N(R<sub>22</sub>)<sub>2</sub>, N(R<sub>22</sub>)<sub>2</sub>, CON(R<sub>22</sub>)<sub>2</sub>, NR<sub>22</sub>C(O)R<sub>22</sub> or NR<sub>22</sub>C(O)NR<sub>22</sub>, wherein R<sub>21</sub> and each R<sub>22</sub> is defined herein; B is NR<sub>3</sub> or CR<sub>3</sub>, wherein R<sub>3</sub> is defined herein; with the proviso that, when A is not N, then one of A or B is either CR<sub>1</sub> or CR<sub>3</sub>, K is N or CR<sub>4</sub>, wherein R<sub>4</sub> is defined herein; L is N or CR<sub>5</sub>, wherein R<sub>5</sub> has the same definition as R<sub>4</sub> defined above; M is N or CR<sub>7</sub>, wherein R<sub>7</sub> has the same definition as R<sub>4</sub> defined above; R<sub>5</sub> is C(Y<sub>1</sub>)Z wherein Y<sub>1</sub> is O or S; and Z is N(R<sub>6a</sub>)R<sub>6</sub> or OR<sub>6</sub>, wherein R<sub>6a</sub> is H or alkyl or NR<sub>61</sub>R<sub>62</sub> wherein R<sub>61</sub> and R<sub>62</sub> are defined herein; and R<sub>6</sub> is H, alkyl, cycloalkyl, alkenyl, Het, alkyl-aryl, alkyl-Het; or R<sub>6</sub> is wherein R<sub>7</sub> and R<sub>8</sub> and Q are as defined herein; Y<sub>2</sub> is O or S; R<sub>9</sub> is H, (C<sub>1</sub>-6 alkyl), (C<sub>3</sub>-7)cycloalkyl or (C<sub>1</sub>-6)alkyl-(C<sub>3</sub>-7)cycloalkyl, aryl, Het, (C<sub>1</sub>-6)alkyl-aryl or (C<sub>1</sub>-6)alkyl-Het, all of which optionally substituted with R<sub>90</sub>; or R<sub>9</sub> is covalently bonded to either of R<sub>7</sub> or R<sub>8</sub> to form a 5- or 6-membered heterocycle; or a salt thereof; where the probe comprises a detectable label attached to any suitable position, whereby said probe binds to an HCV polymerase or an analog thereof and is capable of being displaced by an inhibitor thereof. The assocn. of a specific probe with the HCV NS5B polymerase can be monitored and quantified directly by a change in the intrinsic spectral properties of a tagged or un-tagged NS5B protein and/or by a change in the intrinsic spectral properties of a specific probe. A direct measurement of inhibitor-NS5B assocn. can also be achieved by immobilizing one of these two components on a matrix and measuring assocn. through plasma-resonance detection technol. An assay that quantifies probe-NS5B complex assocn. may also incorporate a photo-reactive label (such as phenyl-azide or benzophenone) on the probe and measure the amt. of label irreversibly bound to the NS5B adduct following photo-activation of the probe. Thus, titrn. of fluorescein-labeled probe II (FL = 5-thiocarbonylaminofluorescein) with the enzyme was measured with excitation wavelength at 493 nm and emission monitored at 530 nm, indicating a Kd value of 6 nM, which is .gtoreq.100-fold higher for HCV polymerase than

obtained with the GBV-B polymerase. A major advantage of the direct binding assay is that different affinities for the primer/template RNA substrate with N-terminal tag His-NS5B.DELTA.21 and C-terminal tag NS5B.DELTA.21-His are reconciled by relatively similar Kd values that individual inhibitors display with the two different HCV polymerases.

ACCESSION NUMBER: 2003:133484 CAPLUS  
 DOCUMENT NUMBER: 138:165718  
 TITLE: Probes for direct binding assay for identifying inhibitors of hepatitis C virus RNA-dependent RNA polymerase.  
 INVENTOR(S): Kukolj, George; Beaulieu, Pierre L.; McKercher, Ginette  
 PATENT ASSIGNEE(S): Boehringer Ingelheim (Canada) Ltd., Can.  
 SOURCE: PCT Int. Appl., 125 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003014377	A2	20030220	WO 2002-CA1214	20020805
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003108862	A1	20030612	US 2002-211455	20020802

PRIORITY APPLN. INFO.: US 2001-310272P P 20010807

OTHER SOURCE(S): MARPAT 138:165718

IT 497844-93-6P 497844-96-9P

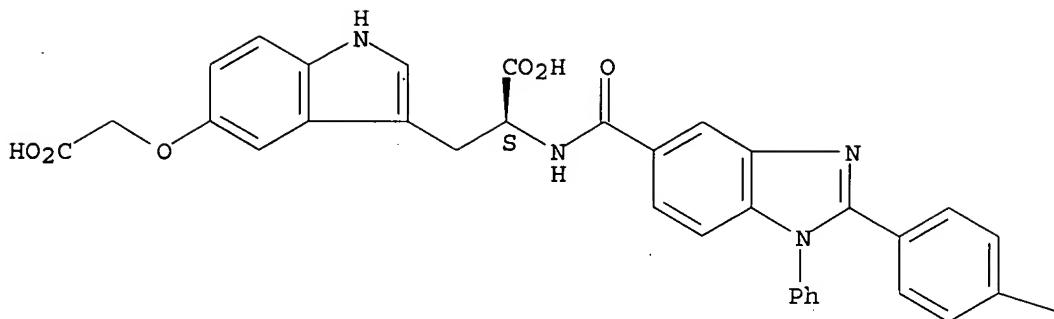
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)  
 (probes for direct binding assay for identifying inhibitors of hepatitis C virus RNA-dependent RNA polymerase)

RN 497844-93-6 CAPLUS

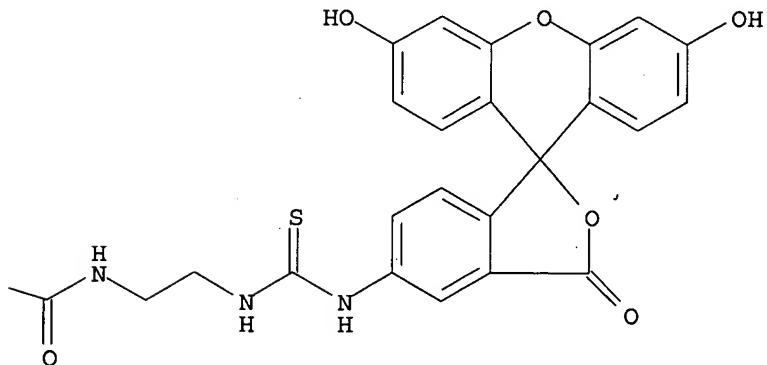
CN L-Tryptophan, 5-(carboxymethoxy)-N-[[2-[4-[[[2-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-5-yl)amino]thioxomethyl]amino]ethyl]amino]carbonyl]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

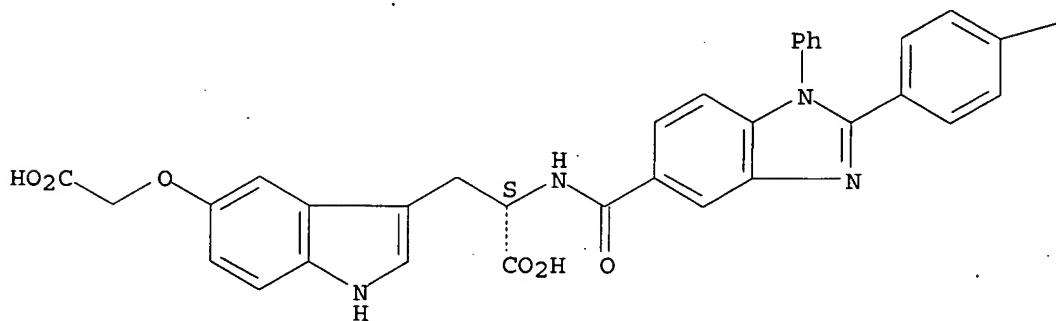


RN 497844-96-9 CAPLUS

CN L-Tryptophan, 5-(carboxymethoxy)-N-[2-[4-[[2-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]ethyl]amino]carbonyl]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

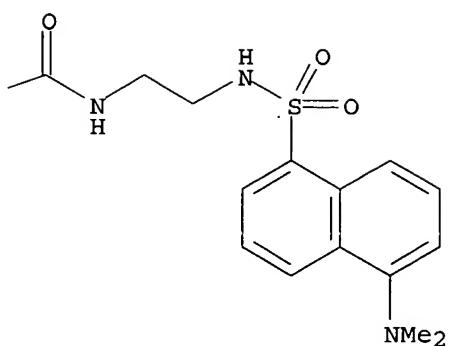
PAGE 1-A



07/31/2003

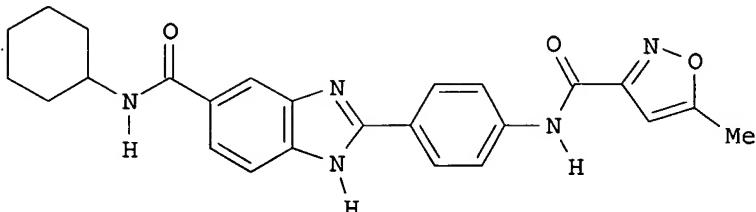
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PAGE 1-B



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ANSWER 4 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN



AB RZZ1R5 [I; R = CONR<sub>1</sub>R<sub>2</sub> and R<sub>5</sub> = NR<sub>3</sub>R<sub>4</sub> or CONR<sub>3</sub>R<sub>4</sub> or R = NR<sub>1</sub>COR<sub>2</sub> and R<sub>5</sub> = CONR<sub>3</sub>R<sub>4</sub>; R<sub>1</sub>,R<sub>2</sub> = H, alkyl, (un)substituted (hetero)aryl, etc.; R<sub>3</sub>,R<sub>4</sub> = H, alkyl, (hetero)aryl, alkanoyl, aroyl, etc.; Z = (un)substituted benzimidazole-n,2-diyl; Z<sub>1</sub> = (un)substituted phenylene; n = 4-7] were prepd. Thus, 3,4-(H<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>H was cyclocondensed with 4-(O<sub>2</sub>N)C<sub>6</sub>H<sub>4</sub>CHO and the product amidated by cyclohexylamine to give, after redn. and amidation, title compd. II. Data for biol. activity of 1 I were given.

ACCESSION NUMBER: 2002:716082 CAPLUS

DOCUMENT NUMBER: 137:232653

TITLE: Preparation of 2-(carboxamidophenyl)benzimidazole-5-carboxamides and analogs as IgE and cell proliferation inhibitors

INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Major, Michael W.

PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA

SOURCE: PCT Int. Appl., 213 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072090	A1	20020919	WO 2002-US6801	20020228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002132808	A1	20020919	US 2002-90044	20020227
PRIORITY APPLN. INFO.:			US 2001-275260P	P 20010312
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OTHER SOURCE(S): MARPAT 137:232653

IT 459806-84-9P 459806-85-0P 459806-86-1P

459806-87-2P 459806-88-3P 459806-89-4P

459806-90-7P 459806-91-8P 459806-92-9P

459806-93-0P 459806-94-1P 459806-95-2P

459806-96-3P 459806-97-4P 459806-98-5P

459806-99-6P 459807-00-2P 459807-01-3P

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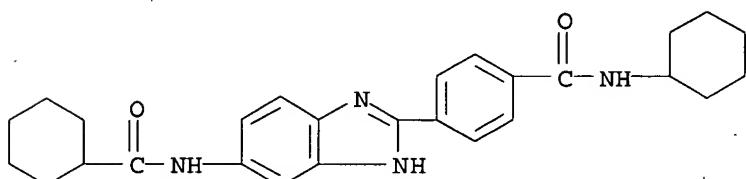
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 459809-18-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 2-(carboxamidophenyl)benzimidazole-5-carboxamides and analogs as IgE and cell proliferation inhibitors)

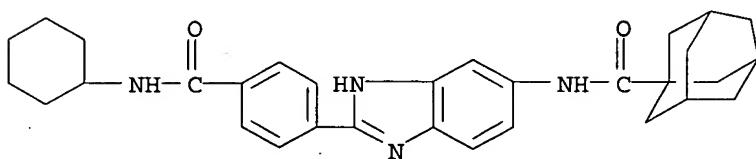
RN 459806-84-9 CAPLUS

CN Benzamide, N-cyclohexyl-4-[5-[(cyclohexylcarbonyl)amino]-1H-benzimidazol-2-yl] - (9CI) (CA INDEX NAME)



RN 459806-85-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxamide, N-[2-[4-[(cyclohexylamino)carbonyl]phenyl]-1H-benzimidazol-5-yl] - (9CI) (CA INDEX NAME)

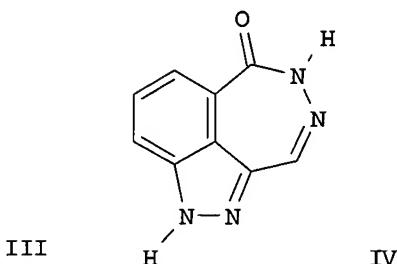
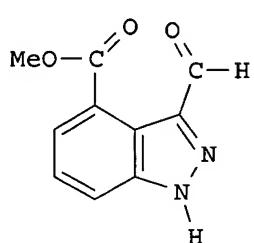
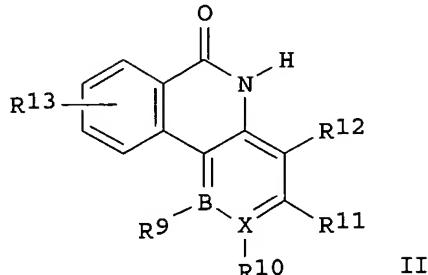
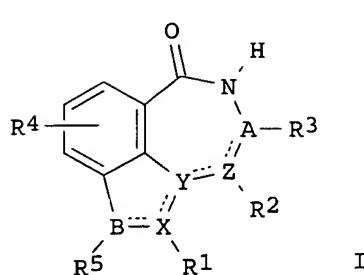


RN 459806-86-1 CAPLUS

CN Benzamide, N-cyclohexyl-4-[5-[(2-methylcyclohexylcarbonyl)amino]-1H-benzimidazol-2-yl] - (9CI) (CA INDEX NAME)

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ANSWER 5 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN



AB This invention discloses the prepn. of title compds. I and II, their pharmaceutically acceptable salts, and related compds. as inhibitors of poly(ADP-ribose) polymerase (PARP) [wherein: A = N, C, CH<sub>2</sub>, CH; B = C, N, NH, S, SO, SO<sub>2</sub>; X = C, CH, N; Y = C, N; Z = C, CH<sub>2</sub>, N, CO; provided that at least one of X, Y, or Z is N; R1, R2, R3, R5 when present are optionally or independently = H, OH, :O, (un)substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, halogen, amine, COR8 (R8 = H, OH, (un)substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl), OR6, NR6R7 (R6, R7 independently = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl); R1, R2, R3, R5 optionally form ring through a straight or branched C1-4alkyl which may addnl. contain 1-2 double or triple bonds; R4 = 1-3 of H, halo, or alkyl; with proviso that when A, X, or Z = C, then R1, R2, R3 when present may also independently = halogen, CN, O; R9, R10, R11, R12 optionally or independently = H, halogen, amino, OH, halo-amine, O-alkyl, O-aryl, (un)substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, COR8; R13 = 1-3 of H, halogen, alkoxy, alkyl]. For example, cyclocondensation of formylindazole III (prepd. from Me indole-4-carboxylate and NaNO<sub>2</sub>/AcOH), with hydrazine provided claimed benzoazulenone IV as a white solid. Benzoazulenone IV inhibited human recombinant PARP at an IC<sub>50</sub> of 0.018 .mu.M. PARP IC<sub>50</sub> inhibition studies for an addnl. 156 examples are provided, ranging in values from 0.01 to 20 .mu.M. Biol. data are provided for the in vivo treatment of focal cerebral ischemia and gout via PARP inhibition with selected compds. II. The present invention is believed to protect cells, tissue and organs against the ill-effects of reactive free radicals and nitric oxide through inhibition of PARP activity.

ACCESSION NUMBER: 2002:428911 CAPLUS

DOCUMENT NUMBER: 137:6205

TITLE: Preparation of benzazepinones, isoquinolinones and

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related compounds as inhibitors of poly(ADP-ribose) polymerase (PARP) for the prevention and/or treatment of tissue damage from cell trauma or cell death due to necrosis or apoptosis.

INVENTOR(S): Ferraris, Dana V.; Li, Jia-He; Kalish, Vincent J.;  
Zhang, Jie

PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA

SOURCE: PCT Int. Appl., 152 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044183	A2	20020606	WO 2001-US44815	20011130
WO 2002044183	A3	20030522		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002036521	A5	20020611	AU 2002-36521	20011130
US 2003022883	A1	20030130	US 2001-996776	20011130

PRIORITY APPLN. INFO.: US 2000-250132P P 20001201  
US 2001-310274P P 20010809  
WO 2001-US44815 W 20011130

OTHER SOURCE(S): MARPAT 137:6205

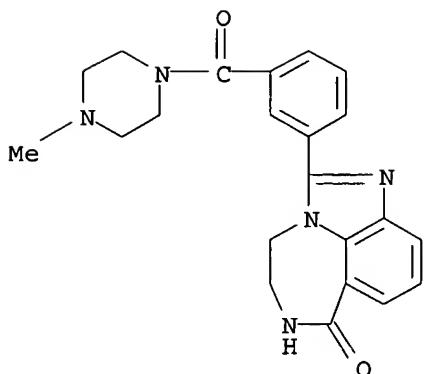
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433727-41-4P 433727-42-5P 433727-43-6P  
433727-44-7P 433727-45-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of benzazepinones, isoquinolinones and related compds. as inhibitors of poly(ADP-ribose) polymerase (PARP))

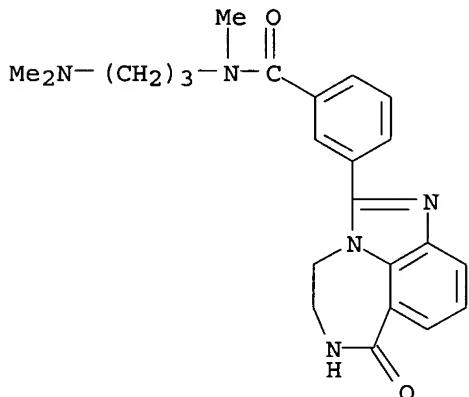
RN 433726-35-3 CAPLUS

CN Piperazine, 1-methyl-4-[3-(4,5,6,7-tetrahydro-7-oxoimidazo[4,5,1-jk][1,4]benzodiazepin-2-yl)benzoyl]- (9CI) (CA INDEX NAME)



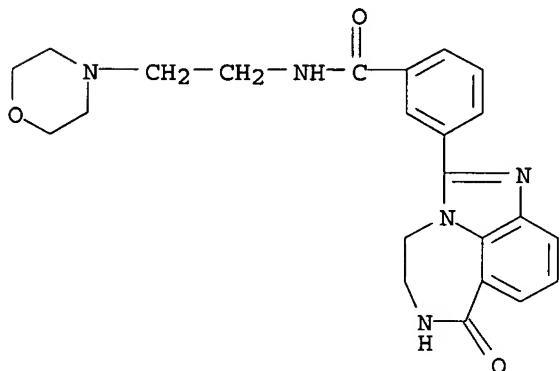
RN 433726-37-5 CAPLUS

CN Benzamide, N-[3-(dimethylamino)propyl]-N-methyl-3-(4,5,6,7-tetrahydro-7-oxoimidazo[4,5,1-jk][1,4]benzodiazepin-2-yl)- (9CI) (CA INDEX NAME)



RN 433727-34-5 CAPLUS

CN Benzamide, N-[2-(4-morpholinyl)ethyl]-3-(4,5,6,7-tetrahydro-7-oxoimidazo[4,5,1-jk][1,4]benzodiazepin-2-yl)- (9CI) (CA INDEX NAME)

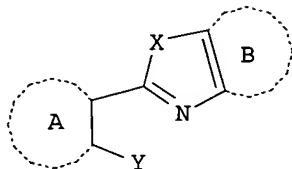


RN 433727-35-6 CAPLUS

CN Benzamide, N-[2-(1-pyrrolidinyl)ethyl]-3-(4,5,6,7-tetrahydro-7-oxoimidazo[4,5,1-jk][1,4]benzodiazepin-2-yl)- (9CI) (CA INDEX NAME)

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ANSWER 6 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN



**AB** The compds. I [ring A, ring B = (un)substituted arom. ring; X = NR<sub>0</sub>, S, O; R<sub>0</sub> = H, lower alkyl; Y = NR<sub>1</sub>R<sub>2</sub>, CONR<sub>1</sub>'R<sub>2</sub>', C(OH)R<sub>1</sub>''R<sub>2</sub>''', (un)substituted (un)satd. 5- to 7-membered heterocycle; R<sub>1</sub> = (un)substituted lower alkyl, alkenyl, alkynyl; R<sub>2</sub> = org. group excluding lower alkyl; R<sub>1</sub>R<sub>2</sub> may form heterocycle; R<sub>1</sub>', R<sub>2</sub>' = (un)substituted lower alkyl; R<sub>1</sub>'R<sub>2</sub>' may form heterocycle; R<sub>1</sub>'', R<sub>2</sub>'' = (un)substituted lower alkyl] or their pharmaceutically acceptable salts are prep'd. The compds. are useful for anti-inflammatory agents, antirheumatic agents, and agents for bone regeneration. 2-(5,6-Dichloro-1H-imidazol-2-yl)-N-methylaniline (2.06 g) was reacted with acetyl chloride in pyridine at 25.degree. for 1 h to give 630 mg N-[2-(5,6-dichloro-1H-benzimidazol-2-yl)phenyl]-N-methylacetamide showing 66% inhibition of osteoclast differentiation in vitro.

ACCESSION NUMBER: 2002:422943 CAPLUS

DOCUMENT NUMBER: 137:6177

TITLE: Preparation of phenylbenzimidazoles as osteoclast differentiation induction inhibitors and osteoclast inhibitors

INVENTOR(S): Nakahira, Hiroyuki; Horiuchi, Yoshihiro

PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 87 pp.

CODEN: JKXXAF

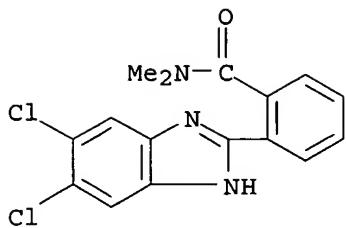
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

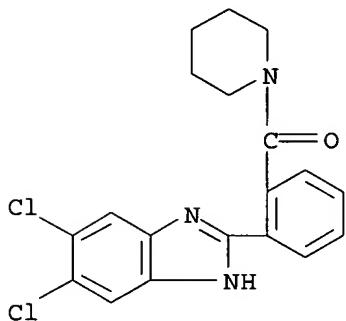
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

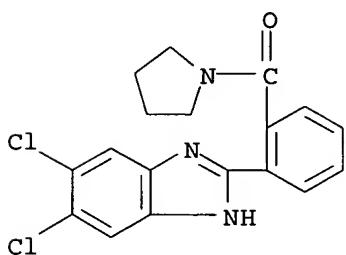
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002161084	A2	20020604	JP 2000-360964	20001128
PRIORITY APPLN. INFO.:	JP 2000-360964 20001128			
OTHER SOURCE(S):	MARPAT 137:6177			
IT	433299-24-2P 433299-26-4P 433299-28-6P 433299-30-0P 433299-31-1P 433299-32-2P			
RL:	PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)			
	(prepns. of phenylbenzimidazoles as osteoclast differentiation induction inhibitors and osteoclast inhibitors)			
RN	433299-24-2 CAPLUS			
CN	Benzamide, 2-(5,6-dichloro-1H-benzimidazol-2-yl)-N,N-dimethyl- (9CI) (CA INDEX NAME)			



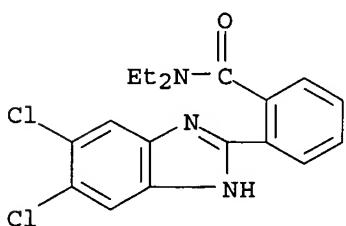
RN 433299-26-4 CAPLUS  
CN Piperidine, 1-[2-(5,6-dichloro-1H-benzimidazol-2-yl)benzoyl]- (9CI) (CA INDEX NAME)



RN 433299-28-6 CAPLUS  
CN Pyrrolidine, 1-[2-(5,6-dichloro-1H-benzimidazol-2-yl)benzoyl]- (9CI) (CA INDEX NAME)



RN 433299-30-0 CAPLUS  
CN Benzamide, 2-(5,6-dichloro-1H-benzimidazol-2-yl)-N,N-diethyl- (9CI) (CA INDEX NAME)

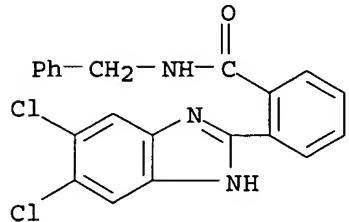


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10019105.trn

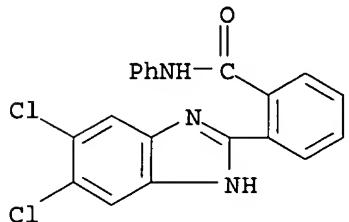
RN 433299-31-1 CAPLUS

CN Benzamide, 2-(5,6-dichloro-1H-benzimidazol-2-yl)-N-(phenylmethyl)- (9CI)  
(CA INDEX NAME)



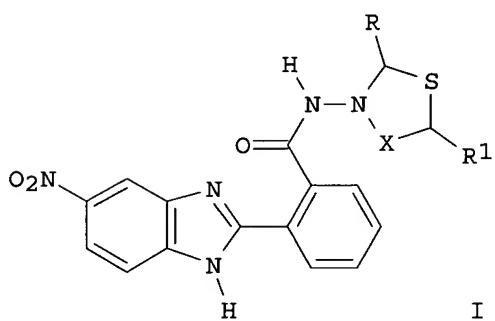
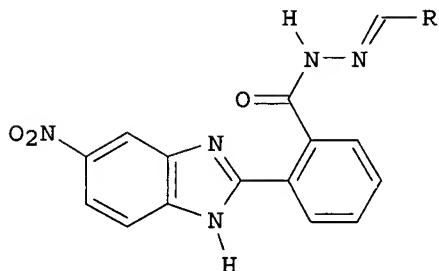
RN 433299-32-2 CAPLUS

CN Benzamide, 2-(5,6-dichloro-1H-benzimidazol-2-yl)-N-phenyl- (9CI) (CA  
INDEX NAME)



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AB The starting compd. 5-nitrobenzimidazol-2'-yl-o-benzoyl hydrazide, on treatment with arom. aldehydes yielded the corresponding benzal-(5'-nitrobenzimidazol-2'-yl-o-benzoyl) hydrazines I (R = Ph, 2-ClC<sub>6</sub>H<sub>4</sub>, 4-HOC<sub>6</sub>H<sub>4</sub>, etc.). The heterocyclization of I with thioglycolic acid and thiolactic acid furnished the corresponding 2-aryl-3-(5'-nitrobenzimidazol-2'-yl-o-benzamido)-5-H-4-thiazolidinones (3a-o) and 2-aryl-3-(5'-nitrobenzimidazol-2'-yl-o-benzamido)-5-methyl-4-thiazolidinones II (X = CO; R<sub>1</sub> = H, Me, resp.). The compds. were screened for their antitubercular activity against Mycobacterium tuberculosis H37 Rv.

ACCESSION NUMBER: 2002:130859 CAPLUS

DOCUMENT NUMBER: 137:337812

TITLE: Synthesis of some 4-thiazolidinones as potential antitubercular agents

AUTHOR(S): Joshi, Dharti G.; Oza, Haresh B.; Parekh, Hansa H.

CORPORATE SOURCE: Department of Chemistry, Saurashtra University, Rajkot, 360 005, India

SOURCE: Indian Journal of Heterocyclic Chemistry (2001), 11(2), 145-148

CODEN: IJCHEI; ISSN: 0971-1627

PUBLISHER: Prof. R. S. Varma

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 474301-77-4P 474301-78-5P 474301-79-6P

474301-80-9P 474301-81-0P 474301-82-1P

474301-83-2P 474301-84-3P 474301-85-4P

474301-86-5P 474301-87-6P 474301-88-7P

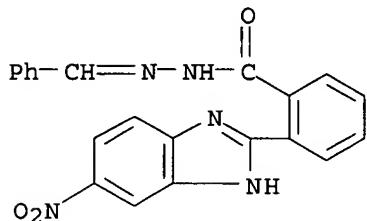
**474301-89-8P 474301-90-1P 474301-91-2P**

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of benzimidazoles and thiazolidinones as potential antitubercular agents)

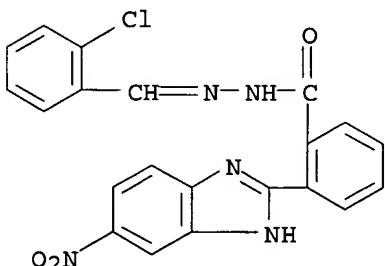
RN 474301-77-4 CAPLUS

CN Benzoic acid, 2-(5-nitro-1H-benzimidazol-2-yl)-, (phenylmethylene)hydrazide (9CI) (CA INDEX NAME)



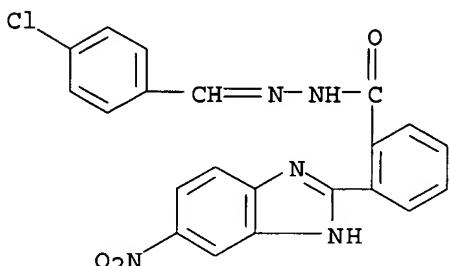
RN 474301-78-5 CAPLUS

CN Benzoic acid, 2-(5-nitro-1H-benzimidazol-2-yl)-, [(2-chlorophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



RN 474301-79-6 CAPLUS

CN Benzoic acid, 2-(5-nitro-1H-benzimidazol-2-yl)-, [(4-chlorophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)

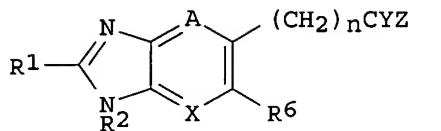


RN 474301-80-9 CAPLUS

CN Benzoic acid, 2-(5-nitro-1H-benzimidazol-2-yl)-, [(2,4-dichlorophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)

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AB Title compds. [I; X = CH, N; Y = O, S; Z = OH, NH<sub>2</sub>, NMeR<sub>3</sub>, NHR<sub>3</sub>, OR<sub>3</sub>, 5-6 membered (substituted) heterocyclyl; A = N, COR<sub>7</sub>, CR<sub>5</sub>; R<sub>5</sub> = H, halo, alkyl; R<sub>7</sub> = H, alkyl; X and A are not both N; R<sub>6</sub> = H, halo, alkyl, OR<sub>7</sub>; R<sub>7</sub> = H, alkyl; R<sub>1</sub> = (substituted) hetero(bi)cyclyl, Ph, phenylalkyl, alkenyl, phenylalkenyl, cycloalkyl, alkyl, CF<sub>3</sub>; R<sub>2</sub> = (substituted) alkyl, cycloalkyl, cycloalkylalkyl, bicycloalkyl, adamantyl, Ph, pyridyl; R<sub>3</sub> = H, alkyl, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, alkenyl, cycloalkylalkenyl, arylalkenyl, dialkylamino, heterocyclyl, etc.; n = 0, 1], were prep'd. Thus, Me 3-amino-4-cyclohexylaminobenzoate (prepn. given), 2-pyridinecarboxaldehyde, and Oxone were stirred in DMF to give 80% Et 1-cyclohexyl-2-pyridin-2-yl-1H-benzimidazole-5-carboxylate, which was saponified with aq. NaOH in MeOH to give 91% 1-cyclohexyl-2-pyridin-2-yl-1H-benzimidazole-5-carboxylic acid. The latter inhibited hepatitis C virus RNA dependent polymerase (NS5B) with IC<sub>50</sub> = 1-5 .mu.M.

ACCESSION NUMBER: 2002:51438 CAPLUS

DOCUMENT NUMBER: 136:118447

TITLE: Preparation of benzimidazolecarboxylates and related compounds as viral polymerase inhibitors

INVENTOR(S): Beaulieu, Pierre Louis; Fazal, Gulrez; Gillard, James; Kukolj, George; Austel, Volkhard

PATENT ASSIGNEE(S): Boehringer Ingelheim (Canada) Ltd., Can.

SOURCE: PCT Int. Appl., 322 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002004425	A2	20020117	WO 2001-CA989	20010704
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002065418	A1	20020530	US 2001-898297	20010703
US 6448281	B2	20020910		
EP 1301487	A2	20030416	EP 2001-951274	20010704
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 6479508	B1	20021112	US 2001-995099	20011127
WO 2002070739	A2	20020912	WO 2002-CA323	20020306
WO 2002070739	A3	20030530		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2000-216084P	P 20000706
US 2001-274374P	P 20010308
US 2001-281343P	P 20010405
US 2001-898297	A3 20010703
WO 2001-CA989	W 20010704

OTHER SOURCE(S): MARPAT 136:118447

IT 390810-27-2P 390814-80-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

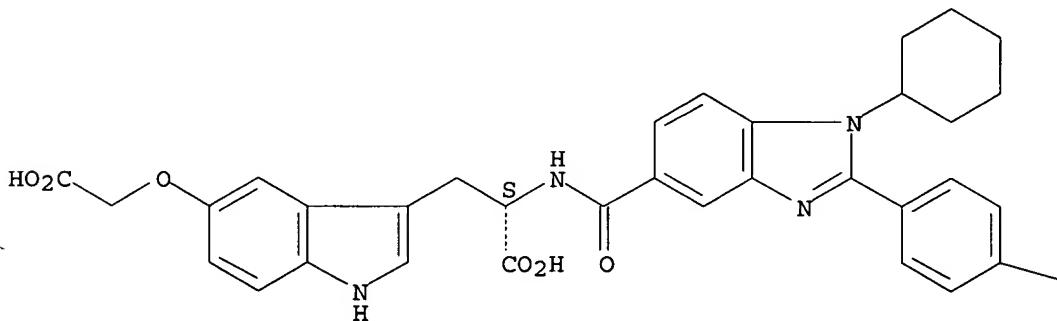
(prepn. of benzimidazolecarboxylates and related compds. as viral polymerase inhibitors)

RN 390810-27-2 CAPLUS

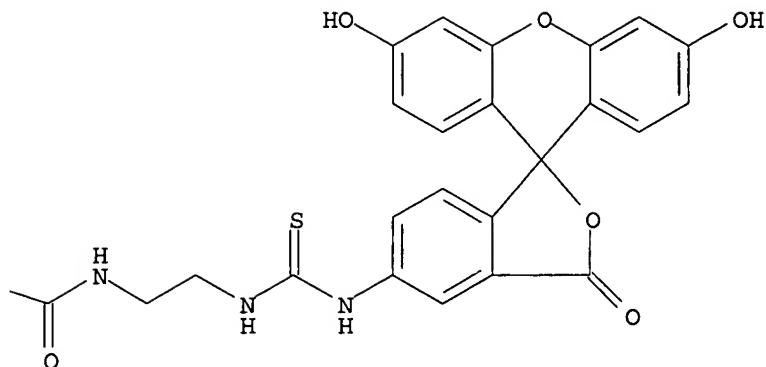
CN L-Tryptophan, 5-(carboxymethoxy)-N-[[1-cyclohexyl-2-[4-[[[2-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-5-yl)amino]thioxomethyl]amino]ethyl]amino]carbonyl]phenyl]-1H-benzimidazol-5-yl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

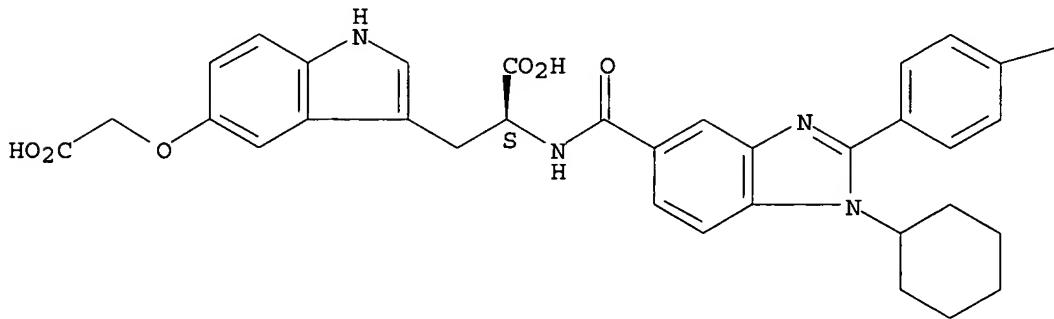


RN 390814-80-9 CAPLUS

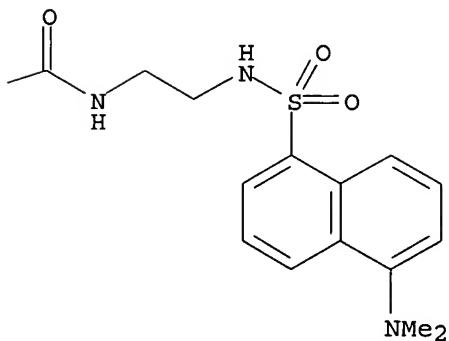
CN L-Tryptophan, 5-(carboxymethoxy)-N-[[1-cyclohexyl-2-[4-[[2-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]ethyl]amino]carbonyl]phenyl]-1H-benzimidazol-5-yl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

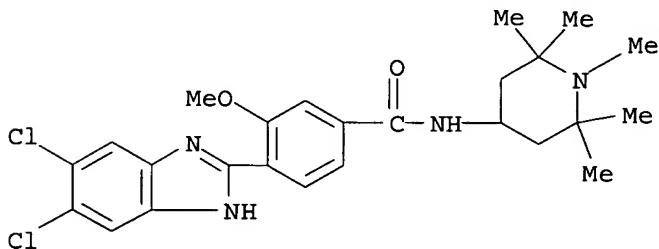


AB

## ANSWER 9 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN

The vacuolar proton pump (V-ATPase) located on the plasma membrane of the osteoclast is a potential mol. target for the discovery of novel bone antiresorptive agents useful for the treatment of osteoporosis. In order to design novel compds. able to selectively inhibit the osteoclast V-ATPase we firstly identified the minimal structural requirements of baflomycin A1, a macrolide antibiotic which potently inhibits all V-ATPases. This information allowed the design of 2-(indole)pentadienamide derivs. whose optimization led to a novel class of potent inhibitors that demonstrated a high degree of selectivity for the osteoclast V-ATPase. The most interesting deriv., SB-242784, was able to inhibit bone resorption by human osteoclasts in vitro and to completely prevent ovariectomy-induced bone loss in rats when administered orally at 10 mg kg<sup>-1</sup> day<sup>-1</sup>. Structure activity relationships of this class of compds. were investigated further by replacing the 2,4-pentadienoyl chain with suitable spacers able to maintain the correct orientation and distance between the indole ring and the amide moiety.

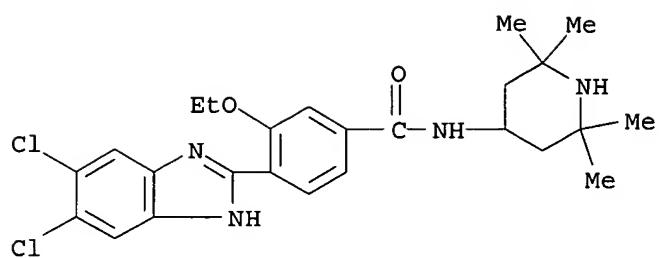
ACCESSION NUMBER: 2001:516943 CAPLUS  
 DOCUMENT NUMBER: 135:298171  
 TITLE: Novel bone antiresorptive agents that selectively inhibit the osteoclast V-H<sup>+</sup>-ATPase  
 AUTHOR(S): Farina, Carlo; Gagliardi, Stefania; Nadler, Guy;  
 Morvan, Marcel; Parini, Carlo; Belfiore, Pietro;  
 Visentin, Luciano; Gowen, Maxine  
 CORPORATE SOURCE: SmithKline Beecham SpA, Milan, 20021, Italy  
 SOURCE: Farmaco (2001), 56(1-2), 113-116  
 CODEN: FRMCE8; ISSN: 0014-827X  
 PUBLISHER: Elsevier Science S.A.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 316809-79-7 316809-81-1  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (structure activity relationships of bone antiresorptive agents that inhibit osteoclast vacuolar H<sup>+</sup>-ATPase)  
 RN 316809-79-7 CAPLUS  
 CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-methoxy-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 316809-81-1 CAPLUS  
 CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

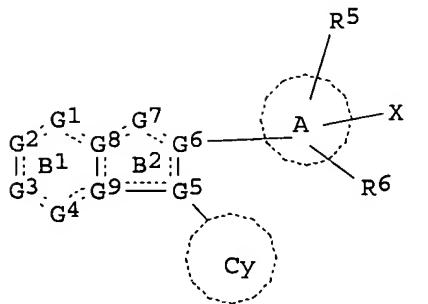
07/31/2003

10019105.trn

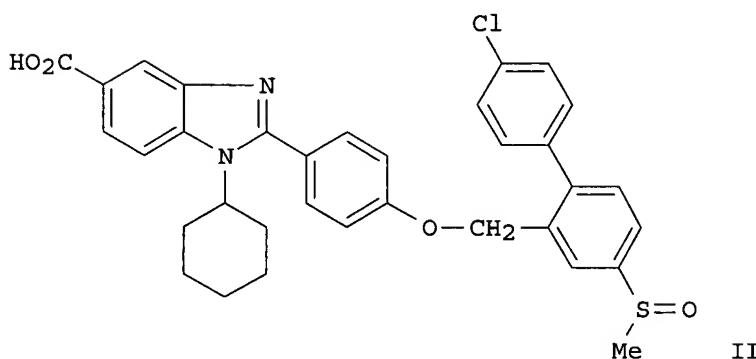


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

GI ANSWER 10 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN



I



II

AB The title compds. I [the dotted line in rings B1 and B2 indicates a single or double bond; G1 = N, CR1; G2 = N, CR2, G3 = N, CR3; G4 = N, CR4; G5, G6, G8, G9 = C, N; G7 = O, etc.; R1 - R4 = H, nitro, etc.; ring Cy = (un)substituted cycloalkyl ring, etc.; ring A = C3-C8 cycloalkyl, etc. R5, R6 = H, halo, etc.; X = H, cyano, etc.] are prepd. The benzimidazole deriv. II in vitro showed IC50 of 0.011 .mu.M against hepatitis C virus polymerase. A formulation is given.

ACCESSION NUMBER: 2001:489367 CAPLUS

DOCUMENT NUMBER: 135:76874

TITLE: Preparation of heterocyclic compounds as remedies for hepatitis C

INVENTOR(S): Hashimoto, Hiromasa; Mizutani, Kenji; Yoshida, Atsuhiro

PATENT ASSIGNEE(S): Japan Tobacco Inc., Japan

SOURCE: PCT Int. Appl., 438 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001047883	A1	20010705	WO 2000-JP9181	20001222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				

HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV,  
 MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE,  
 SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,  
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1162196 A1 20011212 EP 2000-987728 20001222

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

BR 2000008525 A 20020102 BR 2000-8525 20001222

NZ 514403 A 20021025 NZ 2000-514403 20001222

NO 2001004134 A 20011022 NO 2001-4134 20010824

US 2003050320 A1 20030313 US 2001-939374 20010824

PRIORITY APPLN. INFO.: JP 1999-369008 A 19991227  
 WO 2000-JP9181 W 20001222  
 JP 2000-391904 A 20001225  
 JP 2001-193786 A 20010626

OTHER SOURCE(S): MARPAT 135:76874

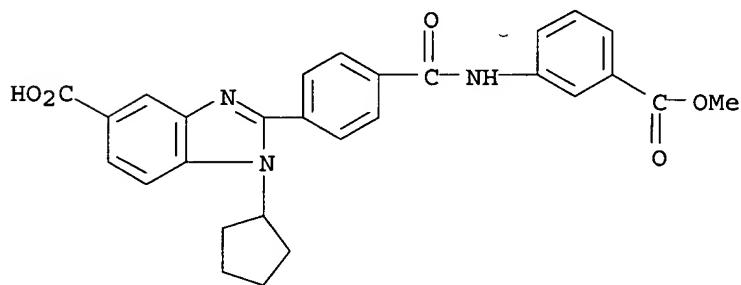
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 347169-10-2P 347169-11-3P 347169-12-4P  
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 347169-16-8P 347169-17-9P 347169-18-0P  
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 347171-63-5P 347171-64-6P 347171-65-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of heterocyclic compds. as remedies for hepatitis C)

RN 347169-06-6 CAPLUS

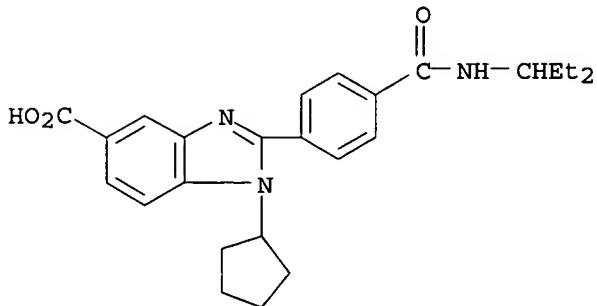
CN 1H-Benzimidazole-5-carboxylic acid, 1-cyclopentyl-2-[4-[[[3-(methoxycarbonyl)phenyl]amino]carbonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 347169-08-8 CAPLUS

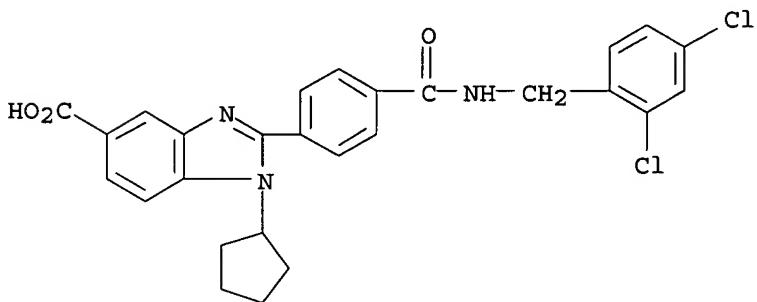
CN 1H-Benzimidazole-5-carboxylic acid, 1-cyclopentyl-2-[4-[[[1-

ethylpropyl)amino]carbonylphenyl]- (9CI) (CA INDEX NAME)



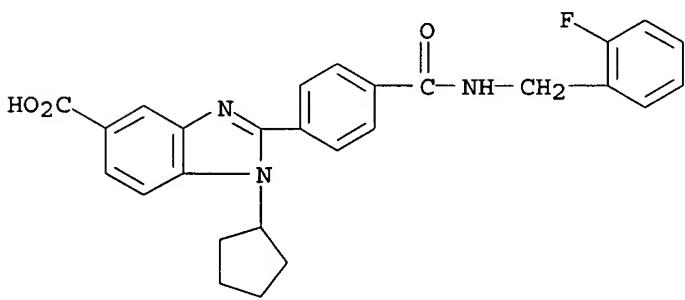
RN 347169-09-9 CAPLUS

CN 1H-Benzimidazole-5-carboxylic acid, 1-cyclopentyl-2-[4-[(2,4-dichlorophenyl)methyl]amino]carbonylphenyl]- (9CI) (CA INDEX NAME)



RN 347169-10-2 CAPLUS

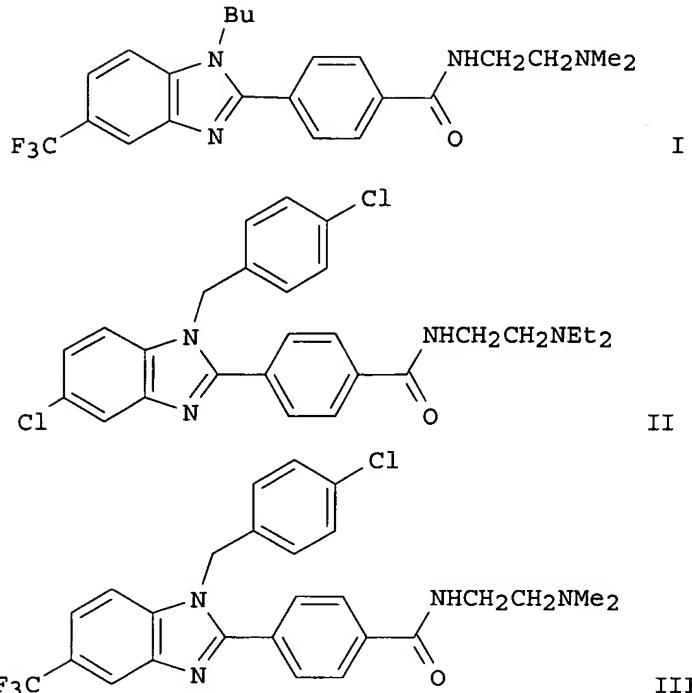
CN 1H-Benzimidazole-5-carboxylic acid, 1-cyclopentyl-2-[4-[(2-fluorophenyl)methyl]amino]carbonylphenyl]- (9CI) (CA INDEX NAME)



RN 347169-11-3 CAPLUS

CN 1H-Benzimidazole-5-carboxylic acid, 1-cyclopentyl-2-[4-[(3-fluorophenyl)methyl]amino]carbonylphenyl]- (9CI) (CA INDEX NAME)

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GI ANSWER 11 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN



AB Some 1H-benzimidazole-carboxamide derivs. were prep'd. and their antimicrobial activities against *Staphylococcus aureus*, *Escherichia coli*, and *Candida albicans* evaluated. Compds. I, II, and III exhibited the best activity against *C. albicans*.

ACCESSION NUMBER: 2001:412102 CAPLUS

DOCUMENT NUMBER: 135:177890

TITLE: Synthesis and antimicrobial activity of some new 2-phenyl-N-substituted carboxamido-1H-benzimidazole derivatives

AUTHOR(S): Goker, Hakan; Tuncbilek, Meral; Suzen, Sibel; Kus, Canan; Altanlar, Nurten

CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ankara University, Ankara, 06100, Turk.

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (2001), 334(5), 148-152

CODEN: ARPMAZ; ISSN: 0365-6233

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:177890

IT 355022-47-8P 355022-48-9P 355022-49-0P

355022-50-3P 355022-51-4P 355022-52-5P

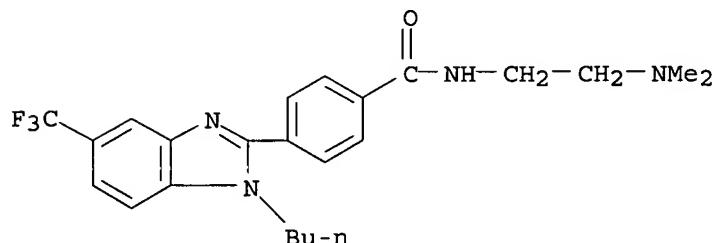
355022-53-6P 355022-54-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis and antimicrobial activity of new 2-phenyl-N-substituted carboxamido-1H-benzimidazole derivs.)

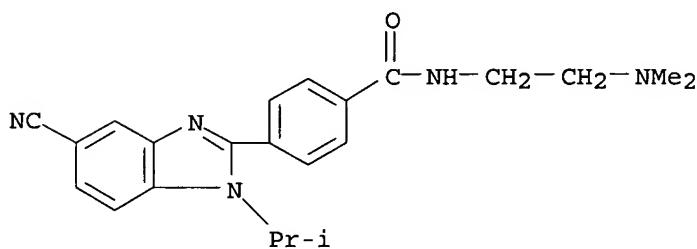
RN 355022-47-8 CAPLUS

CN Benzamide, 4-[1-butyl-5-(trifluoromethyl)-1H-benzimidazol-2-yl]-N-[2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)



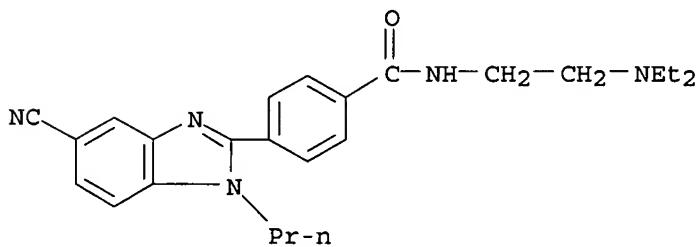
RN 355022-48-9 CAPLUS

CN Benzamide, 4-[5-cyano-1-(1-methylethyl)-1H-benzimidazol-2-yl]-N-[2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)



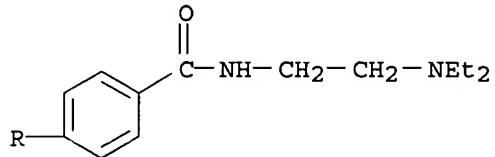
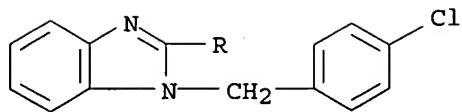
RN 355022-49-0 CAPLUS

CN Benzamide, 4-[5-cyano-1-propyl-1H-benzimidazol-2-yl]-N-[2-(diethylamino)ethyl]- (9CI) (CA INDEX NAME)

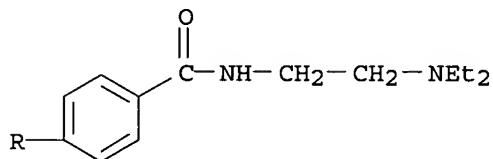
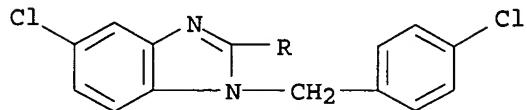


RN 355022-50-3 CAPLUS

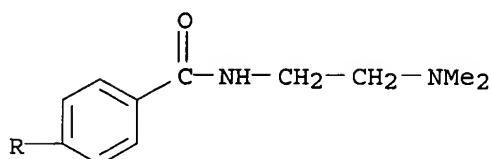
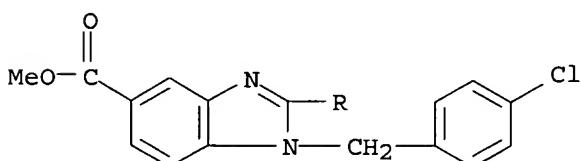
CN Benzamide, 4-[1-[(4-chlorophenyl)methyl]-1H-benzimidazol-2-yl]-N-[2-(diethylamino)ethyl]- (9CI) (CA INDEX NAME)



RN 355022-51-4 CAPLUS  
 CN Benzamide, 4-[5-chloro-1-[(4-chlorophenyl)methyl]-1H-benzimidazol-2-yl]-N-[2-(diethylamino)ethyl]- (9CI) (CA INDEX NAME)



RN 355022-52-5 CAPLUS  
 CN 1H-Benzimidazole-5-carboxylic acid, 1-[(4-chlorophenyl)methyl]-2-[4-[(2-(dimethylamino)ethyl)amino]carbonyl]phenyl-, methyl ester (9CI) (CA INDEX NAME)

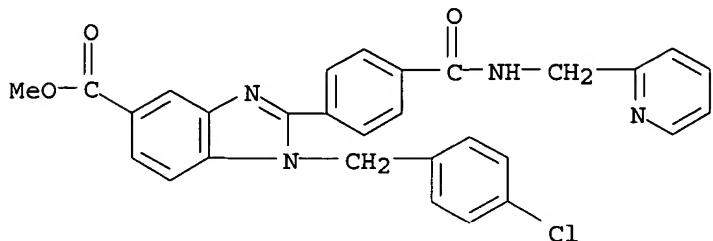


RN 355022-53-6 CAPLUS

07/31/2003

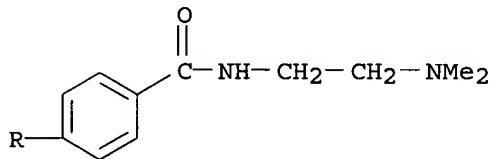
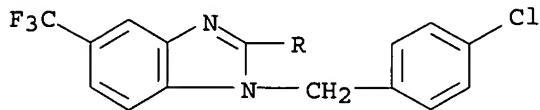
10019105.trn

CN 1H-Benzimidazole-5-carboxylic acid, 1-[(4-chlorophenyl)methyl]-2-[4-[(2-pyridinylmethyl)amino]carbonyl]phenyl-, methyl ester (9CI) (CA INDEX NAME)



RN 355022-54-7 CAPLUS

CN Benzamide, 4-[1-[(4-chlorophenyl)methyl]-5-(trifluoromethyl)-1H-benzimidazol-2-yl]-N-[2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

8

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

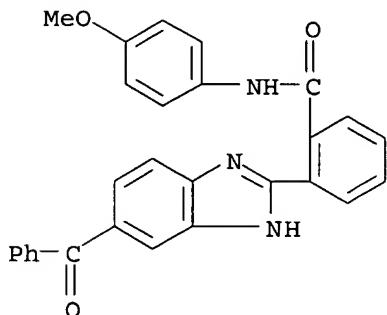
~~AB~~ ANSWER 12 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB The title compds. were prep'd. and their bactericidal, fungicidal, and antitubercular activities detd.

ACCESSION NUMBER: 2001:230886 CAPLUS  
 DOCUMENT NUMBER: 135:5563  
 TITLE: N-Aryl-o-(5'-benzoylbenzimidazol-2'-yl)benzamides  
 AUTHOR(S): Doshi, Rajeev; Kagthara, Preeti; Parekh, H. H.  
 CORPORATE SOURCE: Chemistry Department, Saurashtra University, Rajkot,  
 360 005, India  
 SOURCE: Journal of the Institution of Chemists (India) (2000),  
 72(4), 140-141  
 CODEN: JOICA7; ISSN: 0020-3254  
 PUBLISHER: Institution of Chemists (India)  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

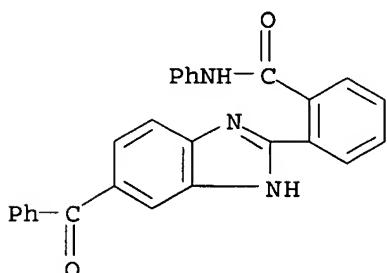
IT 341997-38-4P 341997-39-5P 341997-40-8P  
 341997-41-9P 341997-42-0P 341997-43-1P  
 341997-44-2P 341997-45-3P 341997-46-4P  
 341997-47-5P 341997-48-6P 341997-49-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prepn. of aryl(benzoylbenzimidazolyl)benzamides and their bactericidal, fungicidal, and antitubercular activities)

RN 341997-38-4 CAPLUS  
 CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(4-methoxyphenyl)- (9CI)  
 (CA INDEX NAME)

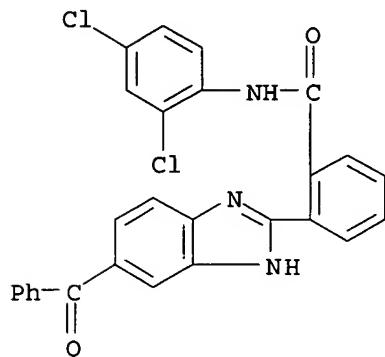


RN 341997-39-5 CAPLUS  
 CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-phenyl- (9CI) (CA INDEX NAME)

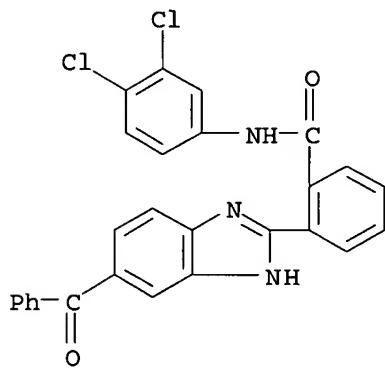


RN 341997-40-8 CAPLUS

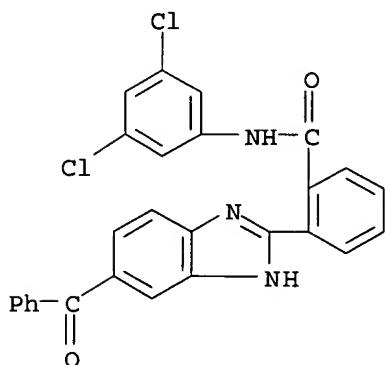
CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(2,4-dichlorophenyl)-  
 (9CI) (CA INDEX NAME)



RN 341997-41-9 CAPLUS  
 CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(3,4-dichlorophenyl)-  
 (9CI) (CA INDEX NAME)

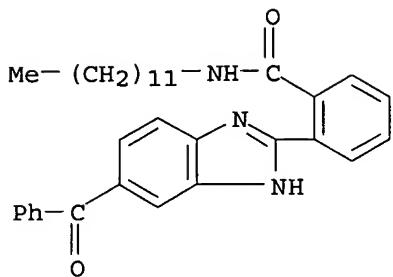


RN 341997-42-0 CAPLUS  
 CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(3,5-dichlorophenyl)-  
 (9CI) (CA INDEX NAME)



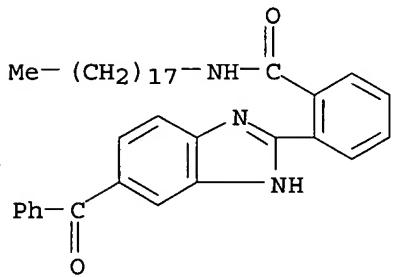
RN 341997-43-1 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-dodecyl- (9CI) (CA INDEX NAME)



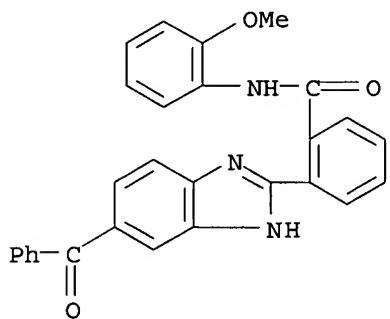
RN 341997-44-2 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-octadecyl- (9CI) (CA INDEX NAME)



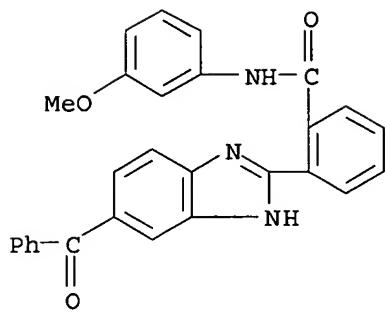
RN 341997-45-3 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)



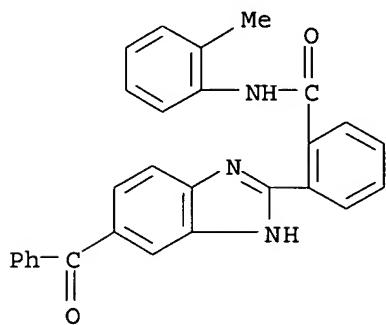
RN 341997-46-4 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)



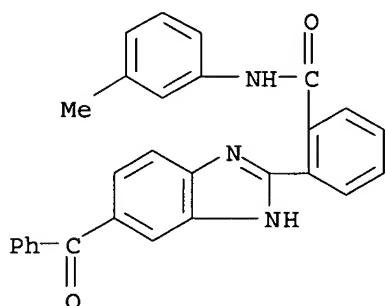
RN 341997-47-5 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(2-methylphenyl)- (9CI)  
(CA INDEX NAME)



RN 341997-48-6 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(3-methylphenyl)- (9CI)  
(CA INDEX NAME)

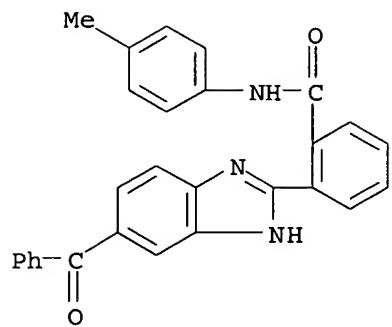


RN 341997-49-7 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(4-methylphenyl)- (9CI)  
(CA INDEX NAME)

07/31/2003

10019105.trn



REFERENCE COUNT:

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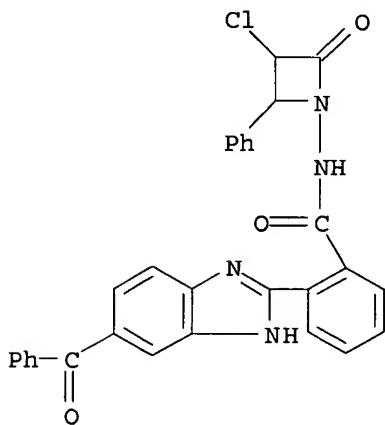
THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

~~GI~~ ANSWER 13 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB .beta.-Lactams have attracted considerable attention in view of their strong antibiotic activity. Taking this into consideration, the prepn. of 2-azetidinones, e.g. I, using a well known acid chloride imine reaction have been undertaken by condensation of a Schiff's base, e.g. II, and chloroacetyl chloride in the presence of triethylamine. The constitution of the products was established by elemental analyses, IR and PMR spectral study.

ACCESSION NUMBER: 2001:230885 CAPLUS  
 DOCUMENT NUMBER: 135:5468  
 TITLE: Azetidinones as bioactive compounds derived from benzimidazole  
 AUTHOR(S): Doshi, Rajeev; Kagthara, Preeti; Parekh, H. H.  
 CORPORATE SOURCE: Chemistry Department, Saurashtra University, Rajkot,  
 360 005, India  
 SOURCE: Journal of the Institution of Chemists (India) (2000),  
 72(4), 138-139  
 CODEN: JOICA7; ISSN: 0020-3254  
 PUBLISHER: Institution of Chemists (India)  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 135:5468  
 IT 340984-29-4P 340984-30-7P 340984-31-8P  
 340984-32-9P 340984-33-0P 340984-34-1P  
 340984-35-2P 340984-36-3P 340984-37-4P  
 340984-38-5P 340984-39-6P 340984-40-9P  
 340984-41-0P 340984-42-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (azetidinones as bioactive compds. derived from benzimidazole)  
 RN 340984-29-4 CAPLUS  
 CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-(3-chloro-2-oxo-4-phenyl-1-azetidinyl)- (9CI) (CA INDEX NAME)



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GI~~ ANSWER 14 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to trifluoromethyl sulfonyl and trifluoromethyl sulfonamido compds. and their physiol. acceptable salts and prodrugs. In particular, compds. I, II, and III are claimed [wherein: Q = CF<sub>3</sub>SO<sub>2</sub>, CF<sub>3</sub>SO<sub>2</sub>NR<sub>3</sub>, CF<sub>3</sub>SO<sub>2</sub>R<sub>4</sub>, or CF<sub>3</sub>SO<sub>2</sub>N(R<sub>3</sub>)R<sub>4</sub>; R<sub>1</sub> = H, alkyl, haloalkyl, cyano, CO<sub>2</sub>H or derivs., halo, OH or derivs., NH<sub>2</sub> or derivs., etc.; R<sub>2</sub> = H, groups similar to R<sub>1</sub>; R<sub>3</sub> = H, (un)substituted alkoxy, acyl, or alkyl; R<sub>4</sub> = (un)substituted CH<sub>2</sub>; n = 0-3; B = atoms to complete (un)substituted fused aryl, carbocyclyl, heteroaryl, or heterocyclyl ring; A<sub>1</sub> = (un)substituted and/or heteroatom-replaced linkage of 2-8 atoms length; A<sub>2</sub> = similar linkage of 0-6 atoms]. These compds. are expected to modulate the activity of protein tyrosine enzymes which are related to cellular signal transduction, in particular, protein tyrosine phosphatase (PTP), and therefore are expected to be useful in the prevention and treatment of disorders assocd. with abnormal protein tyrosine enzyme related cellular signal transduction such as cancer, diabetes, immuno-modulation, neurol. degenerative diseases, osteoporosis and infectious diseases. The invention also relates to the use of compds. contg. fluoromethyl sulfonyl groups as phosphate mimics. These mimics may be used to inhibit, regulate or modulate the activity of a phosphate binding protein in a cell. Over 100 compds. were prep'd., and most were assayed against selected PTPs. For example, etherification of Me 4-(2-hydroxyethoxy)benzoic acid Me ester with 2-nitro-4-(trifluoromethylsulfonyl)chlorobenzene using NaH, and hydrolysis with HCl in aq. THF-EtOH, gave title compd. IV. This compd. had IC<sub>50</sub> values as follows (.mu.M): PTP 1B = 1.5, PTP MEG2 = 1.5, PTP .alpha. = 22.2.

ACCESSION NUMBER: 2001:167962 CAPLUS  
 DOCUMENT NUMBER: 134:222529  
 TITLE: Preparation of aromatic trifluoromethylsulfonyl and trifluoromethylsulfonamido compounds as phosphate mimics and phosphatase inhibitors and methods of treatment  
 INVENTOR(S): Huang, Ping; Wei, Chung Chen; Tang, Peng Cho; Liang, Chris; Ramphal, John; Jallal, Bahija; Blitz, John; Li, Sharon; Mattson, Matthew Neil; Mcahon, Gerald; Koenig, Marcel  
 PATENT ASSIGNEE(S): Sugen, Inc., USA; et al.  
 SOURCE: PCT Int. Appl., 262 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016097	A1	20010308	WO 2000-US23293	20000825
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1212296 A1 20020612 EP 2000-961360 20000825

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003508382 T2 20030304 JP 2001-519667 20000825

US 6596772 B1 20030722 US 2000-645879 20000825

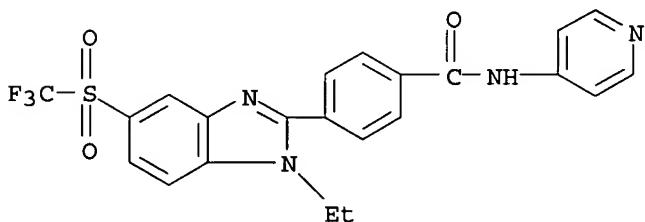
PRIORITY APPLN. INFO.: US 1999-150970P P 19990827  
US 1999-165365P P 19991112  
WO 2000-US23293 W 20000825

OTHER SOURCE(S): MARPAT 134:222529

IT 329317-63-7P, 4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzimidazol-2-yl)-N-pyridin-4-ylbenzamide 329317-64-8P,  
4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzimidazol-2-yl)-N-(4-methoxyphenyl)benzamide 329317-65-9P, 3-[4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzimidazol-2-yl)benzoylamino]benzoic acid ethyl ester 329317-66-0P, 4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzimidazol-2-yl)-N-(2-pyrrolidin-1-ylethyl)benzamide 329317-67-1P, N-Ethyl-4-(1-ethyl-5-trifluoromethanesulfonyl-1H-benzimidazol-2-yl)benzamide  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(drug candidate; prepn. of arom. trifluoromethylsulfonyl and trifluoromethylsulfonamido compds. as phosphate mimics and phosphatase inhibitors)

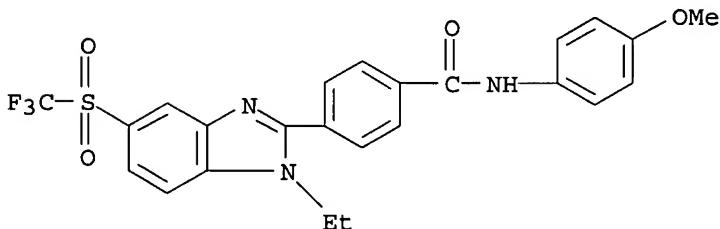
RN 329317-63-7 CAPLUS

CN Benzamide, 4-[1-ethyl-5-[(trifluoromethyl)sulfonyl]-1H-benzimidazol-2-yl]-N-4-pyridinyl- (9CI) (CA INDEX NAME)



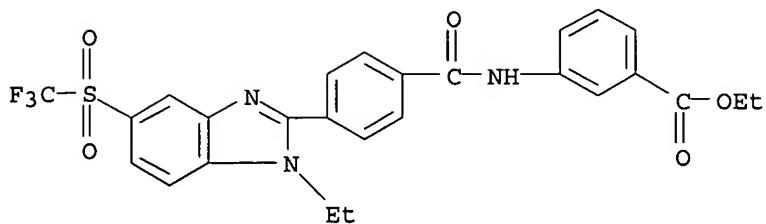
RN 329317-64-8 CAPLUS

CN Benzamide, 4-[1-ethyl-5-[(trifluoromethyl)sulfonyl]-1H-benzimidazol-2-yl]-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



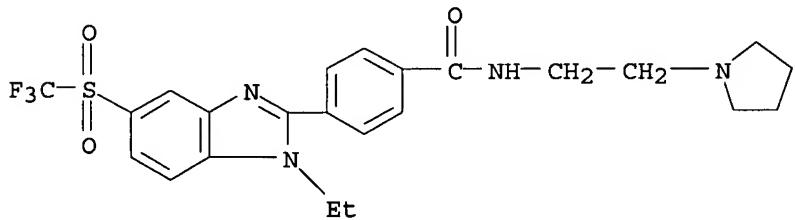
RN 329317-65-9 CAPLUS

CN Benzoic acid, 3-[[4-[1-ethyl-5-[(trifluoromethyl)sulfonyl]-1H-benzimidazol-2-yl]benzoyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



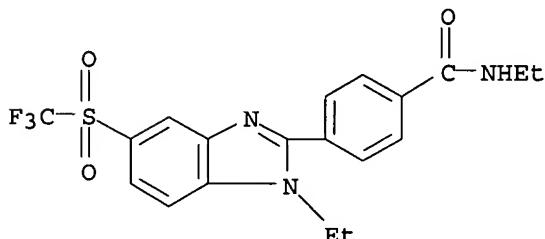
RN 329317-66-0 CAPLUS

CN Benzamide, 4-[1-ethyl-5-[(trifluoromethyl)sulfonyl]-1H-benzimidazol-2-yl]-N-[2-(1-pyrrolidinyl)ethyl] - (9CI) (CA INDEX NAME)



RN 329317-67-1 CAPLUS

CN Benzamide, N-ethyl-4-[1-ethyl-5-[(trifluoromethyl)sulfonyl]-1H-benzimidazol-2-yl] - (9CI) (CA INDEX NAME)

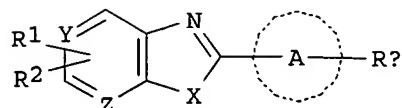


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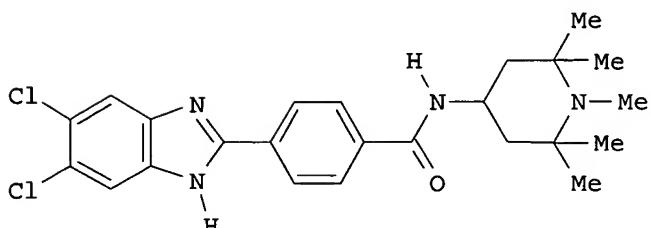
2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



*applicant*



II

AB The title compds. [I; X = O, S, NH, etc.; Y, Z = N, CH, CR1, CR2; A = (un)substituted aryl, heterocyclyl; Ra = CONR3R4 (wherein R3, R4 = H, alkyl, cycloalkyl, etc.); R1, R2 = H, OH, NH2, etc.], useful in the treatment and/or prophylaxis of diseases assocd. with over activity of osteoclasts in mammals, were prep'd. E.g., a multi-step synthesis of the benzimidazole II was given. The compds. I are able to inhibit bafilomycin-sensitive ATPase of human osteoclasts in a range from 2 nM to 15 .mu.M.

ACCESSION NUMBER: 2001:12425 CAPLUS  
 DOCUMENT NUMBER: 134:86246  
 TITLE: Preparation of azolylbenzamides and analogues for treating osteoporosis  
 INVENTOR(S): Farina, Carlo; Gagliardi, Stefania; Rahman, Shahzad Sharooq  
 PATENT ASSIGNEE(S): Smithkline Beecham P.L.C., UK; Smithkline Beecham S.P.A.  
 SOURCE: PCT Int. Appl., 92 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001000587	A1	20010104	WO 2000-EP5881	20000623
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,			

CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 EP 1187813 A1 20020320 EP 2000-947877 20000623  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 JP 2003503390 T2 20030128 JP 2001-506997 20000623  
 PRIORITY APPLN. INFO.: GB 1999-14825 A 19990624  
 WO 2000-EP5881 W 20000623

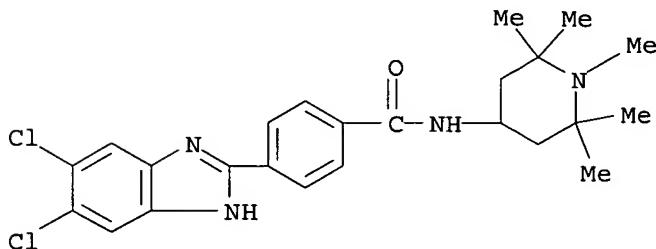
OTHER SOURCE(S): MARPAT 134:86246

IT 316809-76-4P 316809-77-5P 316809-78-6P  
 316809-79-7P 316809-80-0P 316809-81-1P  
 316809-82-2P 316809-83-3P 316809-84-4P  
 316809-85-5P 316809-86-6P 316809-87-7P  
 316809-88-8P 316809-89-9P 316809-90-2P  
 316809-91-3P 316809-92-4P 316809-93-5P  
 316809-94-6P 316809-95-7P 316809-97-9P  
 316809-98-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of azolylbenzamides and analogs for treating osteoporosis)

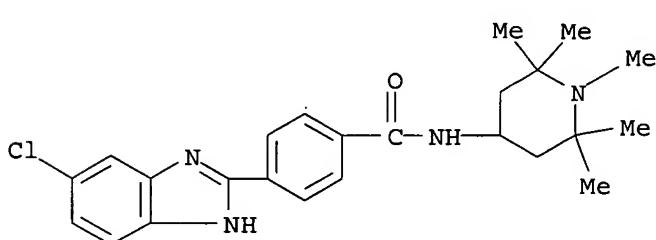
RN 316809-76-4 CAPPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)-(9CI) (CA INDEX NAME)



RN 316809-77-5 CAPPLUS

CN Benzamide, 4-(5-chloro-1H-benzimidazol-2-yl)-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)-(9CI) (CA INDEX NAME)

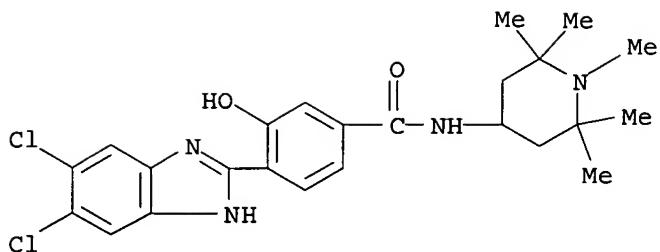


546/199

514/322

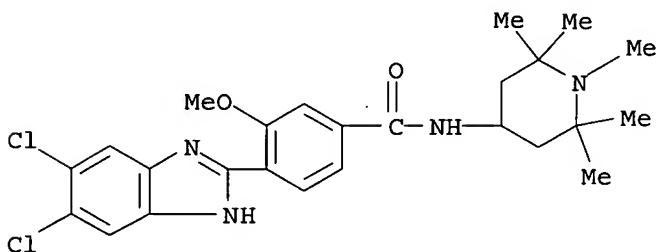
RN 316809-78-6 CAPPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-hydroxy-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)-(9CI) (CA INDEX NAME)



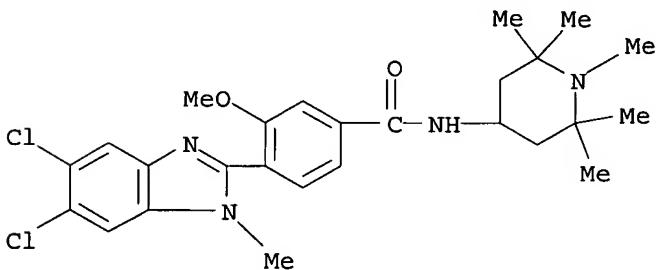
RN 316809-79-7 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-methoxy-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



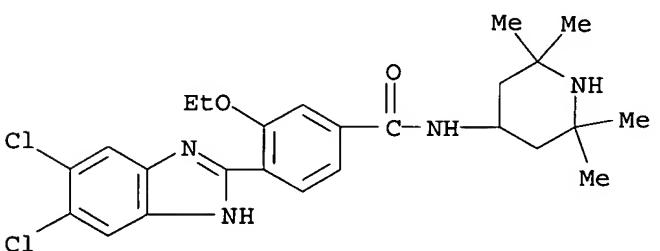
RN 316809-80-0 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1-methyl-1H-benzimidazol-2-yl)-3-methoxy-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



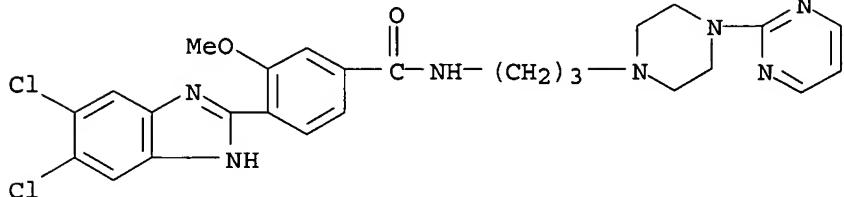
RN 316809-81-1 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 316809-82-2 CAPLUS

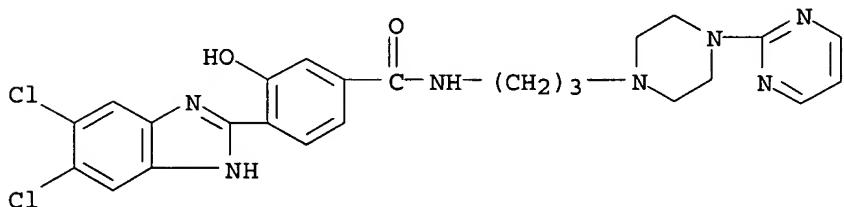
CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-methoxy-N-[3-[4-(2-pyrimidinyl)-1-piperazinyl]propyl]- (9CI) (CA INDEX NAME)



544 / 295  
514 / 252.19

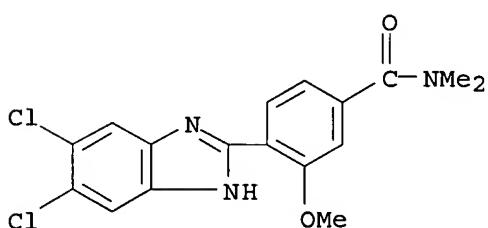
RN 316809-83-3 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-hydroxy-N-[3-[4-(2-pyrimidinyl)-1-piperazinyl]propyl]- (9CI) (CA INDEX NAME)



RN 316809-84-4 CAPLUS

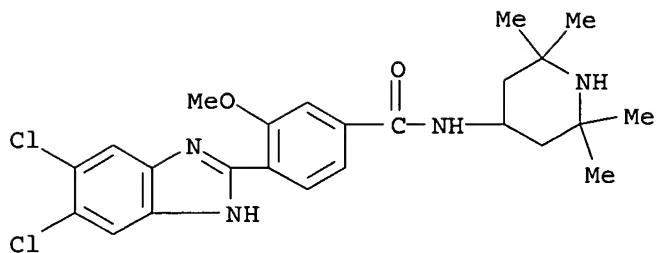
CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-methoxy-N,N-dimethyl- (9CI) (CA INDEX NAME)



548 | 310.1  
514 | 394

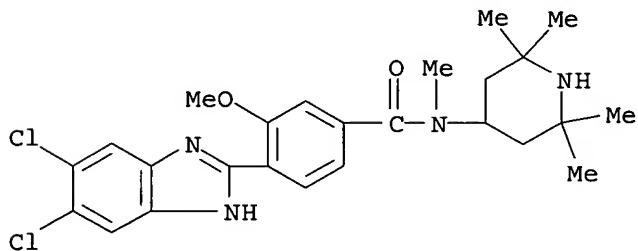
RN 316809-85-5 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-methoxy-N-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



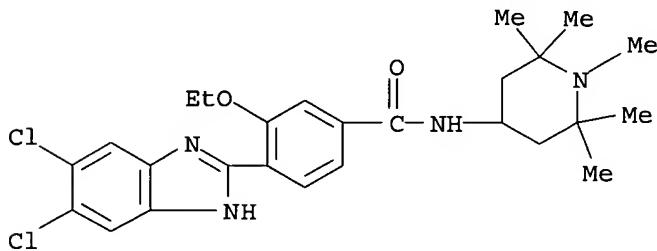
RN 316809-86-6 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-methoxy-N-methyl-N-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



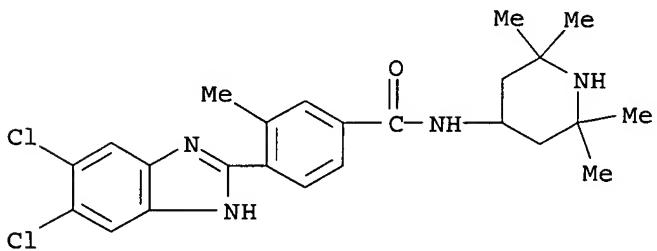
RN 316809-87-7 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



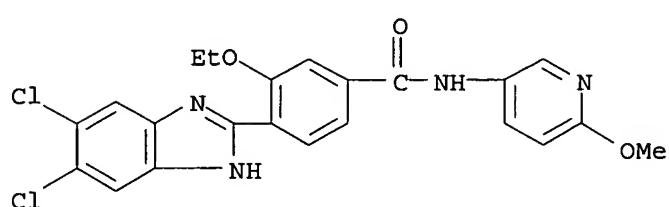
RN 316809-88-8 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-methyl-N-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 316809-89-9 CAPLUS

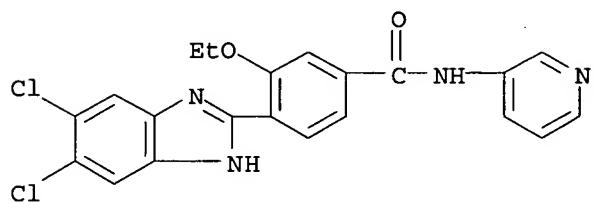
CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-(6-methoxy-3-pyridinyl)- (9CI) (CA INDEX NAME)



546/273.4  
514/338.

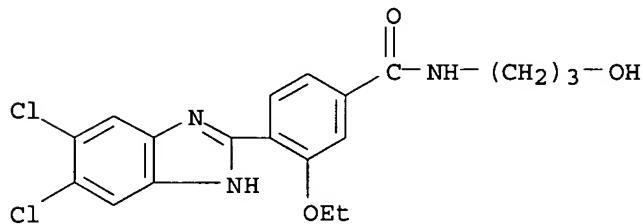
RN 316809-90-2 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-3-pyridinyl- (9CI) (CA INDEX NAME)



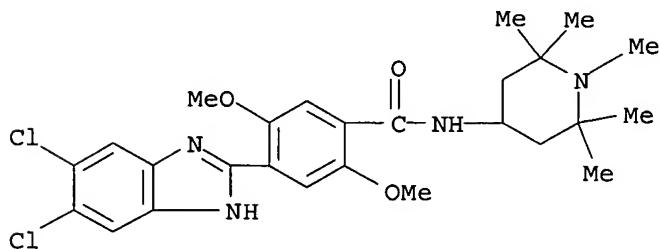
RN 316809-91-3 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-(3-hydroxypropyl)- (9CI) (CA INDEX NAME)



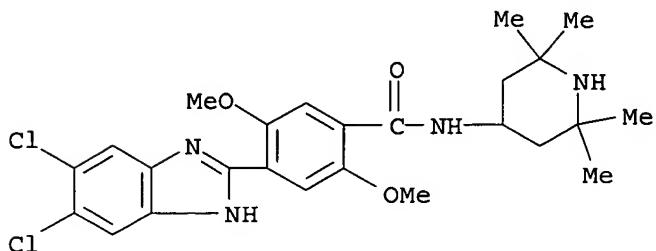
RN 316809-92-4 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-2,5-dimethoxy-N-(1,2,2,6,6-pentamethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



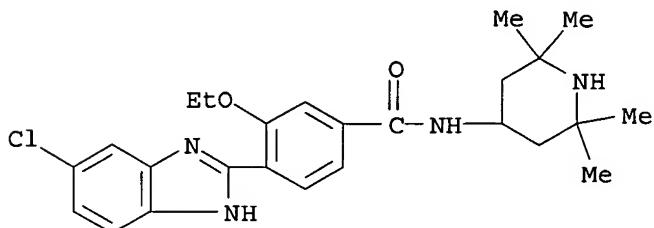
RN 316809-93-5 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-2,5-dimethoxy-N-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



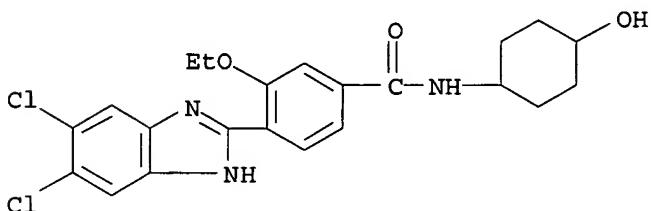
RN 316809-94-6 CAPLUS

CN Benzamide, 4-(5-chloro-1H-benzimidazol-2-yl)-3-ethoxy-N-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 316809-95-7 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-(4-hydroxycyclohexyl)- (9CI) (CA INDEX NAME)



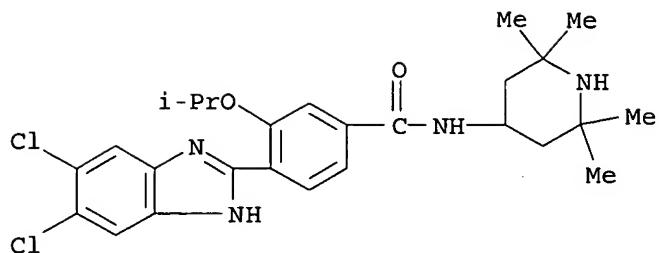
RN 316809-97-9 CAPLUS

CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-(1-methylethoxy)-N-(2,2,6,6-tetramethyl-4-piperidinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

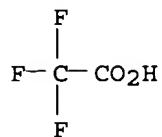
CM 1

CRN 316809-96-8

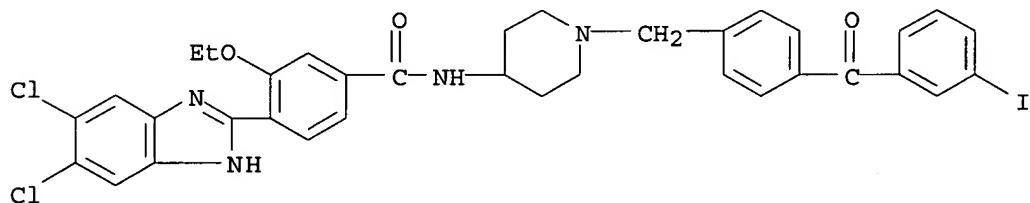
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CM 2

CRN 76-05-1  
CMF C2 H F3 O2

RN 316809-98-0 CAPLUS  
 CN Benzamide, 4-(5,6-dichloro-1H-benzimidazol-2-yl)-3-ethoxy-N-[1-[(4-(3-iodobenzoyl)phenyl)methyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



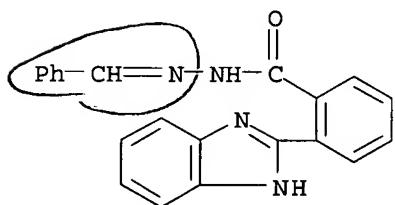
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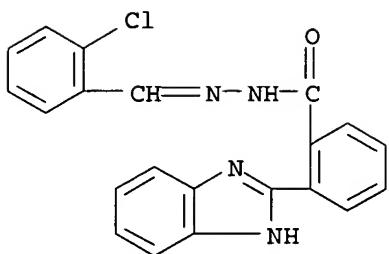
THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB 2-(2-Benzimidazolyl)benzoylhydrazineon condensation with different arom. aldehydes furnished Schiff's bases which on treatment with chloroacetyl chloride in the presence of triethylamine as basic catalyst afforded 2-azetidinones. The synthesized compds. have been tested in vitro for their antitubercular activity against Mycobacterium tuberculosis H37Rv. Some of these compds. exhibited highest antitubercular activity (>90% inhibition).

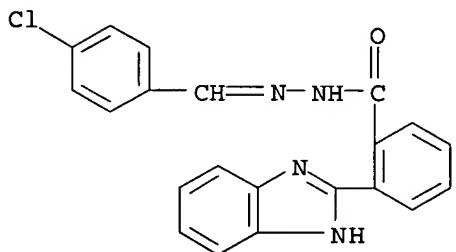
ACCESSION NUMBER: 2000:784863 CAPLUS  
 DOCUMENT NUMBER: 134:207752  
 TITLE: Synthesis of some 2-azetidinones as potential antitubercular agents  
 AUTHOR(S): Kagthara, Preeti; Upadhyay, Tejas; Doshi, Rajeev; Parekh, H. H.  
 CORPORATE SOURCE: Department of Chemistry, Saurashtra University, Rajkot, 360 005, India  
 SOURCE: Indian Journal of Heterocyclic Chemistry (2000), 10(1), 9-12  
 CODEN: IJCHEI; ISSN: 0971-1627  
 PUBLISHER: Prof. R. S. Varma  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 134:207752  
 IT 328407-64-3P 328407-65-4P 328407-66-5P  
 328407-67-6P 328407-69-8P 328407-70-1P  
 328407-71-2P 328407-72-3P 328407-73-4P  
 328407-75-6P 328407-76-7P 328407-77-8P  
 328407-78-9P 328407-79-0P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (prepns. of arom. aldehyde benzimidazolylbenzoylhydrazones and benzimidazolylbenzoylaminoazetidinones as antitubercular agents)  
 RN 328407-64-3 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, (phenylmethylene)hydrazide (9CI) (CA INDEX NAME)



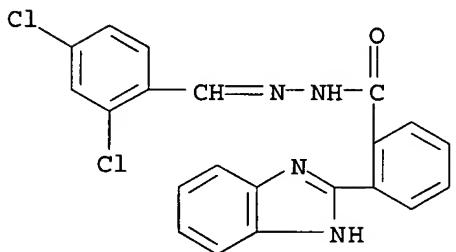
RN 328407-65-4 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(2-chlorophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



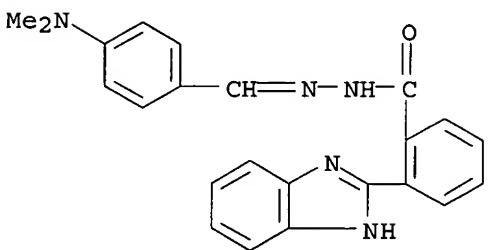
RN 328407-66-5 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(4-chlorophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



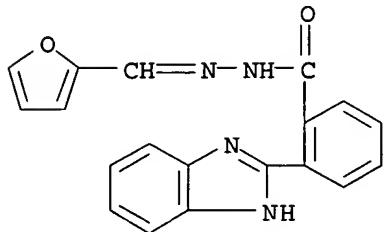
RN 328407-67-6 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(2,4-dichlorophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



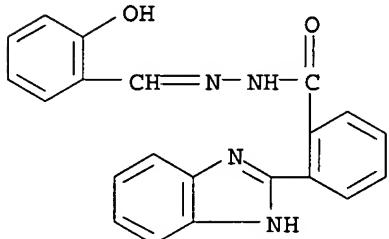
RN 328407-69-8 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [[4-(dimethylamino)phenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



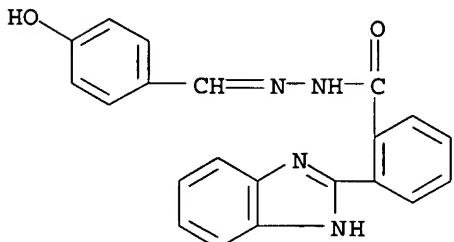
RN 328407-70-1 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, (2-furanylmethylene)hydrazide  
 (9CI) (CA INDEX NAME)



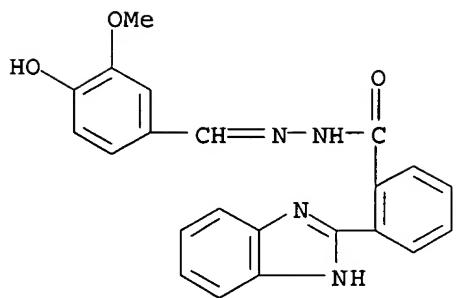
RN 328407-71-2 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(2-hydroxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



RN 328407-72-3 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(4-hydroxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)

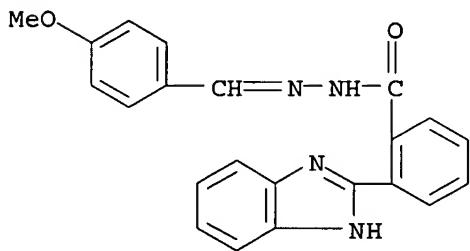


RN 328407-73-4 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(4-hydroxy-3-methoxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



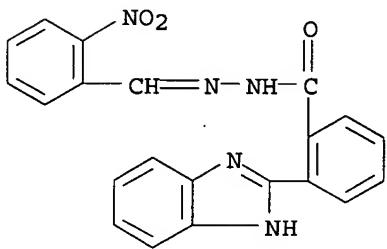
RN 328407-75-6 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(4-methoxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



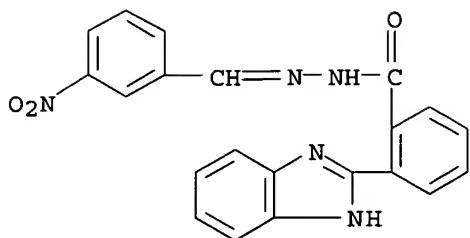
RN 328407-76-7 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(2-nitrophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)

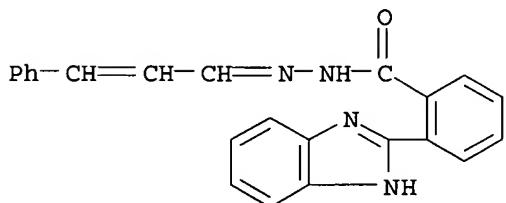


RN 328407-77-8 CAPLUS

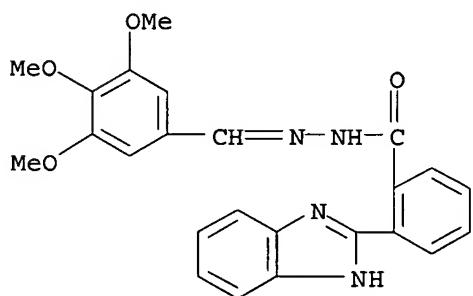
CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(3-nitrophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



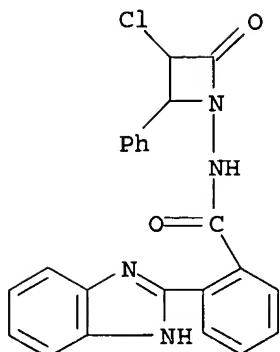
RN 328407-78-9 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, (3-phenyl-2-propenylidene)hydrazide (9CI) (CA INDEX NAME)



RN 328407-79-0 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(3,4,5-trimethoxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)

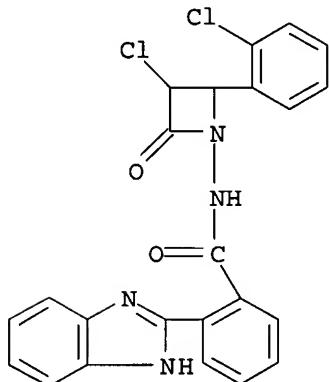


IT 328407-80-3P 328407-81-4P 328407-82-5P  
 328407-83-6P 328407-85-8P 328407-86-9P  
 328407-91-6P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prep'n. of arom. aldehyde benzimidazolylbenzoylhydrazones and benzimidazolylbenzoylaminoazetidinones as antitubercular agents)  
 RN 328407-80-3 CAPLUS  
 CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-(3-chloro-2-oxo-4-phenyl-1-azetidinyl)- (9CI) (CA INDEX NAME)



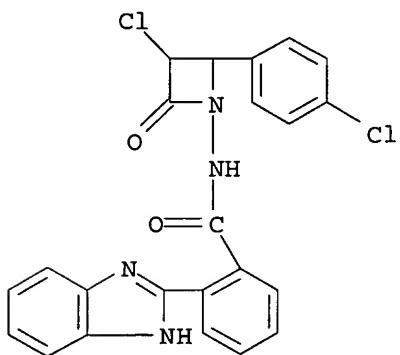
RN 328407-81-4 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(2-chlorophenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



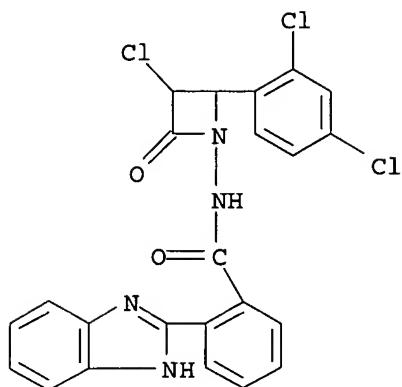
RN 328407-82-5 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(4-chlorophenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)

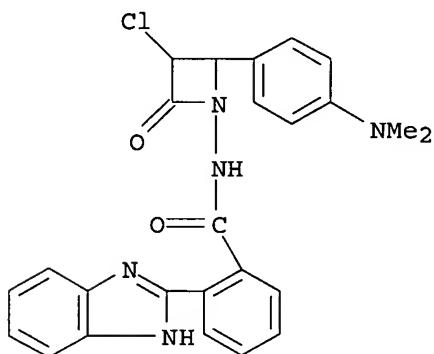


RN 328407-83-6 CAPLUS

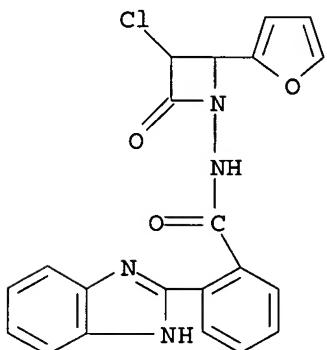
CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(2,4-dichlorophenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



RN 328407-85-8 CAPLUS  
 CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-[4-(dimethylamino)phenyl]-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)

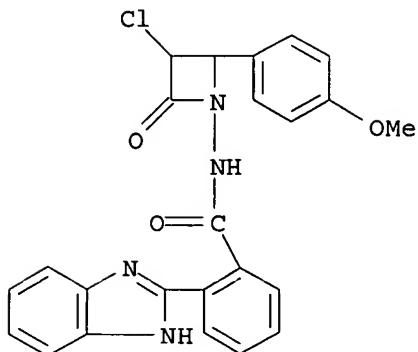


RN 328407-86-9 CAPLUS  
 CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(2-furanyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



RN 328407-91-6 CAPLUS  
 CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(4-methoxyphenyl)-4-oxo-

1-azetidinyl] - (9CI) (CA INDEX NAME)



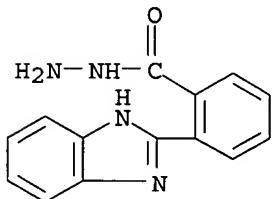
IT 148438-23-7P 328407-68-7P 328407-74-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of arom. aldehyde benzimidazolylbenzoylhydrazones and benzimidazolylbenzoylaminoazetidinones as antitubercular agents)

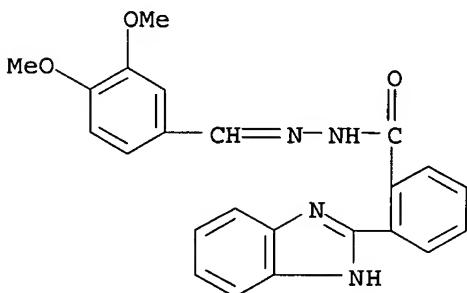
RN 148438-23-7 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, hydrazide (9CI) (CA INDEX NAME)



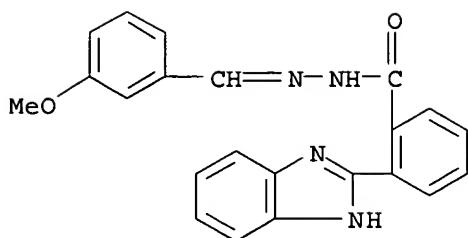
RN 328407-68-7 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(3,4-dimethoxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



RN 328407-74-5 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, [(3-methoxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



IT 328407-84-7P 328407-87-0P 328407-88-1P

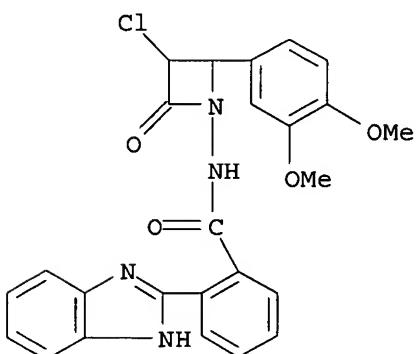
328407-89-2P 328407-90-5P 328407-92-7P

328407-93-8P 328407-94-9P 328407-95-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of arom. aldehyde benzimidazolylbenzoylhydrazones and  
benzimidazolylbenzoylaminoazetidinones as antitubercular agents)

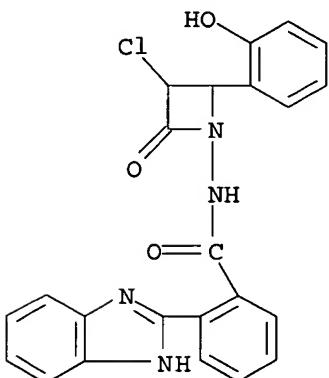
RN 328407-84-7 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(3,4-dimethoxyphenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



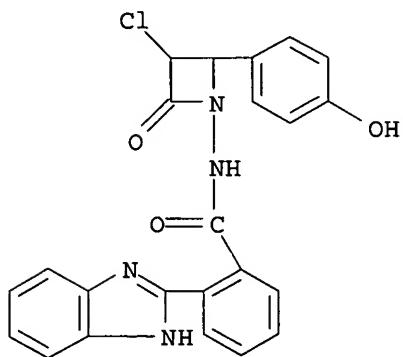
RN 328407-87-0 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(2-hydroxyphenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



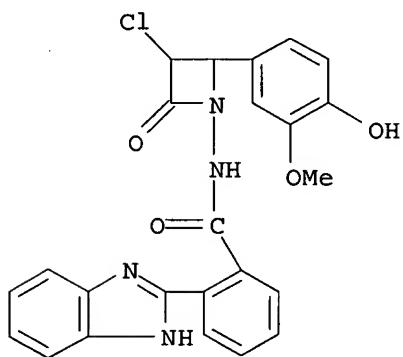
RN 328407-88-1 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(4-hydroxyphenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



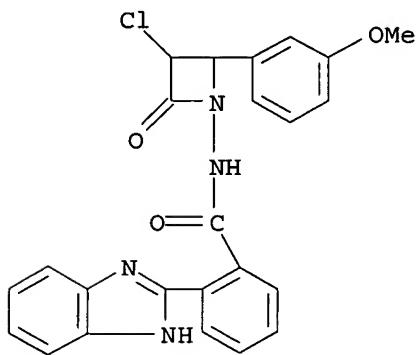
RN 328407-89-2 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(4-hydroxy-3-methoxyphenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



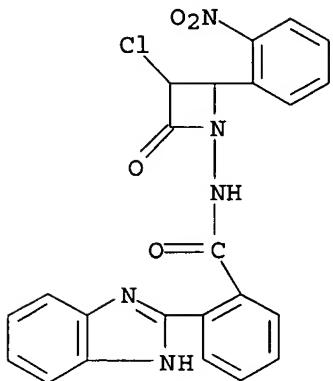
RN 328407-90-5 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(3-methoxyphenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



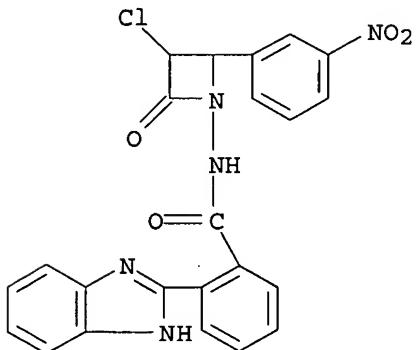
RN 328407-92-7 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(2-nitrophenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



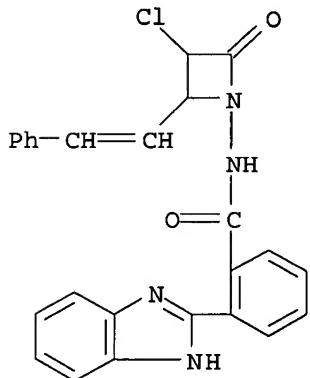
RN 328407-93-8 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-(3-nitrophenyl)-4-oxo-1-azetidinyl]- (9CI) (CA INDEX NAME)



RN 328407-94-9 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-oxo-4-(2-phenylethenyl)-1-azetidinyl]- (9CI) (CA INDEX NAME)

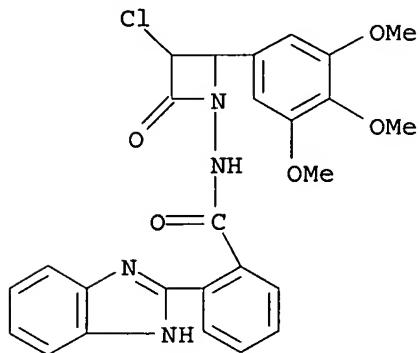


07/31/2003

10019105.trn

RN 328407-95-0 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[3-chloro-2-oxo-4-(3,4,5-trimethoxyphenyl)-1-azetidinyl]- (9CI) (CA INDEX NAME)

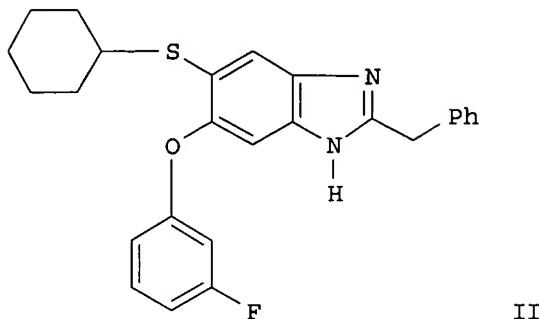
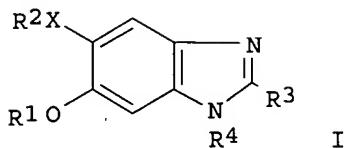


REFERENCE COUNT:

10

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB Title compds. [I; R1 = H, alkyl; R2 = alkyl, chcloalkyl, aryl, pyridyl; R3 = H, alkyl, cycloalkyl; R4 = N, alkyl, alkoxy,  $(CH_2)_nA$ ,  $(CH_2)_nYA$ ; n = 1-5; A = alkyl, alkoxy; Y = O, S] and pharmaceutical acceptable salts are prep'd. and tested as antiinflammatory agents having IL-1, IL-5, IL-6 inhibition effects and are useful as antiallergy agents in the treatment of chronic rheumatism in autoimmune diseases, osteoporosis in bone diseases. Thus, the title compd. II was prep'd.

ACCESSION NUMBER: 2000:59980 CAPLUS  
 DOCUMENT NUMBER: 132:122619  
 TITLE: Preparation of 2,5,6-substituted benzimidazole derivatives  
 INVENTOR(S): Saito, Shuji; Matsumoto, Taro; Nakamura, Toshio  
 PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

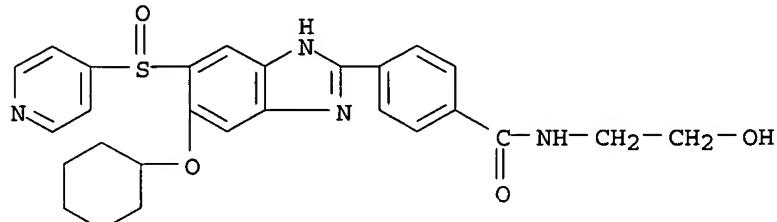
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000026430	A2	20000125	JP 1998-202744	19980702
PRIORITY APPLN. INFO.:			JP 1998-202744	19980702
OTHER SOURCE(S):		MARPAT 132:122619		

IT 255917-73-8P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of substituted benzimidazole derivs.)

RN 255917-73-8 CAPLUS

CN Benzamide, 4-[5-(cyclohexyloxy)-6-(4-pyridinylsulfinyl)-1H-benzimidazol-2-yl]-N-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

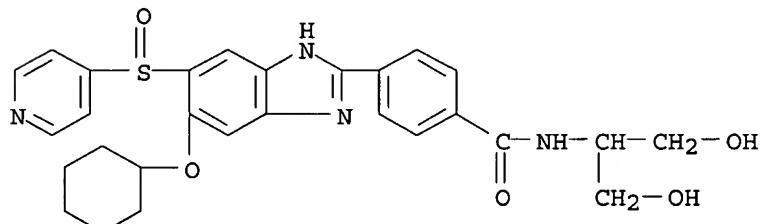


IT 255917-74-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of substituted benzimidazole derivs.)

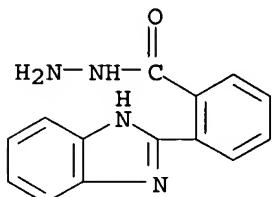
RN 255917-74-9 CAPLUS

CN Benzamide, 4-[5-(cyclohexyloxy)-6-(4-pyridinylsulfinyl)-1H-benzimidazol-2-yl]-N-[2-hydroxy-1-(hydroxymethyl)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 18 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB 2-(Benzimidazol-2-yl)benzoyl hydrazide (1) when condensed with arom. acids in the presence of POC13 afforded 2-aryl-5-[2-(benzimidazol-2-yl)phenyl]-1,3,4-oxadiazoles. The acid hydrazide 1 on cyclization with CNBr yield 2-amino-5-[2-(benzimidazol-2-yl)phenyl]-1,3,4-oxadiazole which on reaction with aryl sulfonyl chlorides and substituted benzoyl chloride give the corresponding sulfonamides and amides, resp. All the products were evaluated in vitro for their antimicrobial activity against several microbes and antitubercular activity against *Mycobacterium tuberculosis* H37Rv.

ACCESSION NUMBER: 1999:533594 CAPLUS  
 DOCUMENT NUMBER: 131:322584  
 TITLE: Synthesis of 2, 5-disubstituted 1,3,4-oxadiazoles as biologically active heterocycles  
 AUTHOR(S): Kagthara, Preeti R.; Shah, Niraj S.; Doshi, Rajeev K.; Parekh, H. H.  
 CORPORATE SOURCE: Department of Chemistry, Saurashtra University, Rajkot, 360 005, India  
 SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1999), 38B(5), 572-576  
 CODEN: IJSBDB; ISSN: 0376-4699  
 PUBLISHER: National Institute of Science Communication, CSIR  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 148438-23-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and antimicrobial activity of oxadiazoles)  
 RN 148438-23-7 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, hydrazide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB Substituted chalcones, prep'd. by the treatment of 4-(5-benzoylbenzimidazol-2-yl-o-benzamido)acetophenone with araldehydes, on cyclization with hydroxylamine hydrochloride in EtOH furnish isoxazoles. The same chalcones on condensation with malononitrile yield cyanopyridines. Most of the compds. exhibit significant activity against Mycobacterium tuberculosis H37 Rv and MIC values are reported.

ACCESSION NUMBER: 1999:467099 CAPLUS

DOCUMENT NUMBER: 131:243208

TITLE: Synthesis and biological evaluation of some novel isoxazoles and cyanopyridines, a new class of potential anti-tubercular agents

AUTHOR(S): Doshi, Rajeev; Kagthara, Preeti; Parekh, Hansa

CORPORATE SOURCE: Department of Chemistry, Saurashtra University, Rajkot, 360 005, India

SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1999), 38B(3), 348-352

CODEN: IJSBDB; ISSN: 0376-4699

PUBLISHER: National Institute of Science Communication, CSIR

DOCUMENT TYPE: Journal

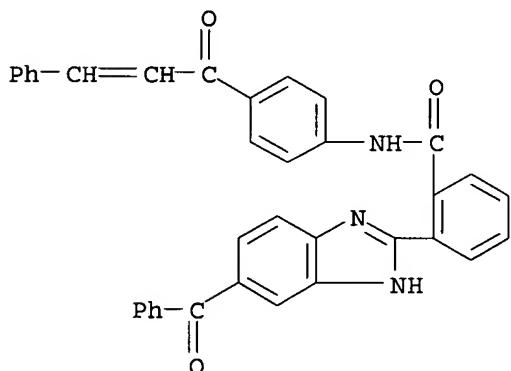
LANGUAGE: English

IT 244302-14-5P 244302-15-6P 244302-17-8P  
 244302-19-0P 244302-20-3P 244302-21-4P  
 244302-22-5P 244302-24-7P 244302-25-8P  
 244302-26-9P 244302-27-0P 244302-28-1P  
 244302-29-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (prep'n. and antitubercular activity of isoxazoles and cyanopyridines)

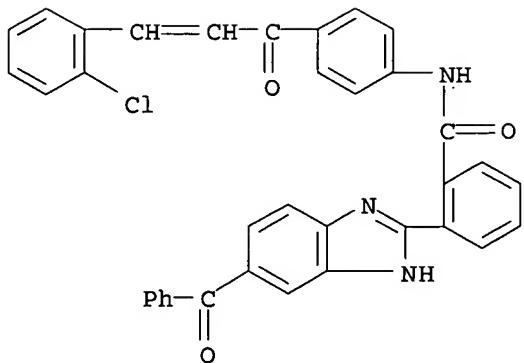
RN 244302-14-5 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-(1-oxo-3-phenyl-2-propenyl)phenyl]- (9CI) (CA INDEX NAME)



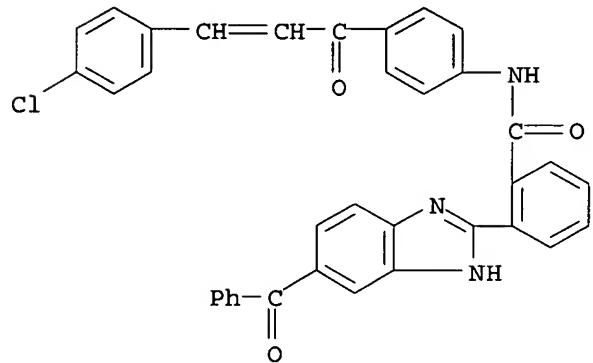
RN 244302-15-6 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(2-chlorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



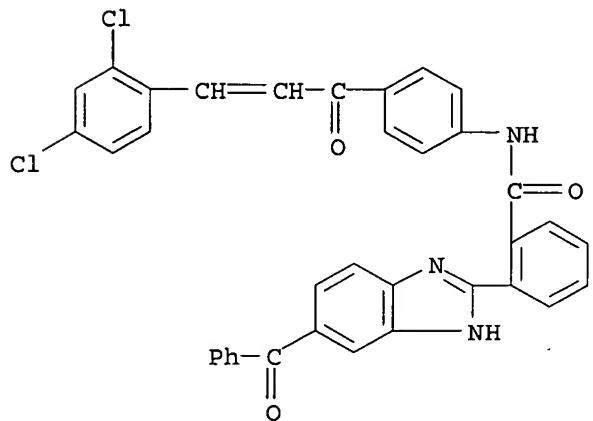
RN 244302-17-8 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(4-chlorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



RN 244302-19-0 CAPLUS

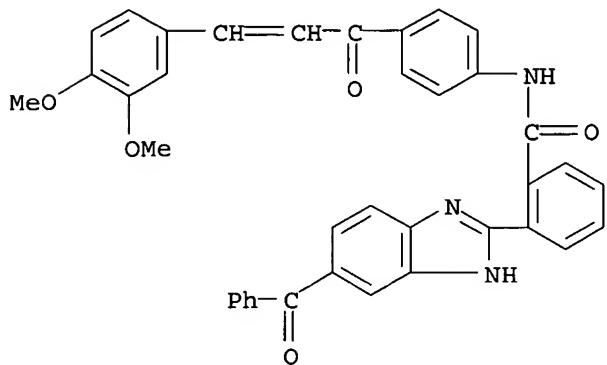
CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(2,4-dichlorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



RN 244302-20-3 CAPLUS

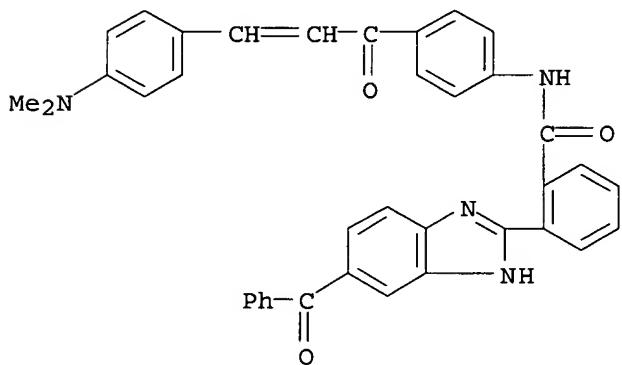
CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(3,4-

dimethoxyphenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



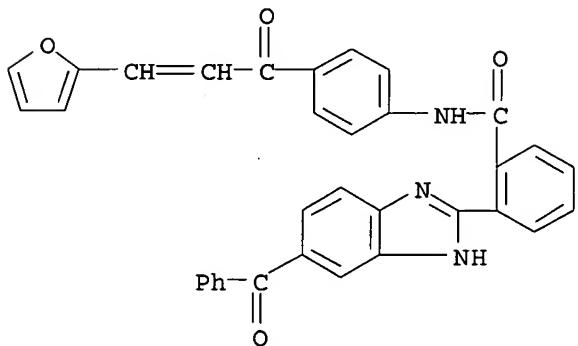
RN 244302-21-4 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



RN 244302-22-5 CAPLUS

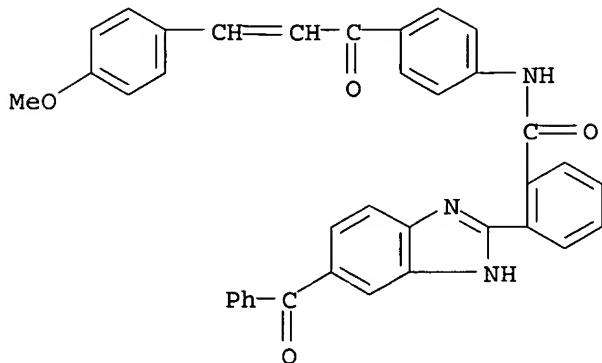
CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(2-furanyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



RN 244302-24-7 CAPLUS

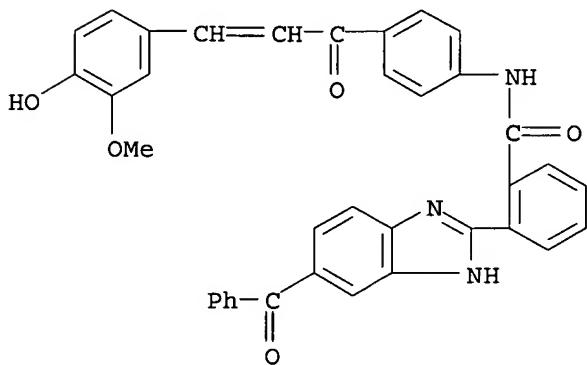
CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(4-methoxyphenyl)-1-

oxo-2-propenylphenyl] - (9CI) (CA INDEX NAME)



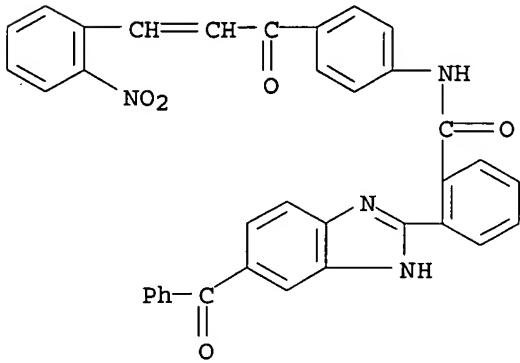
RN 244302-25-8 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(4-hydroxy-3-methoxyphenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



RN 244302-26-9 CAPLUS

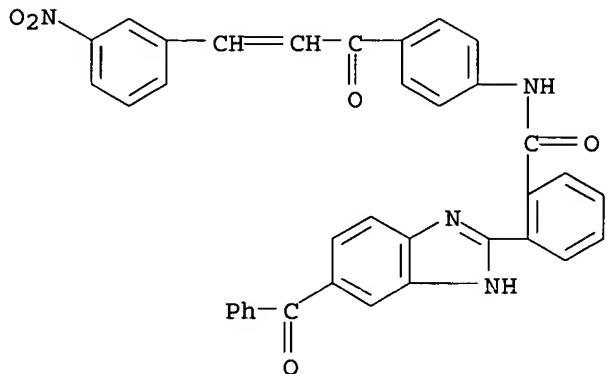
CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(2-nitrophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



RN 244302-27-0 CAPLUS

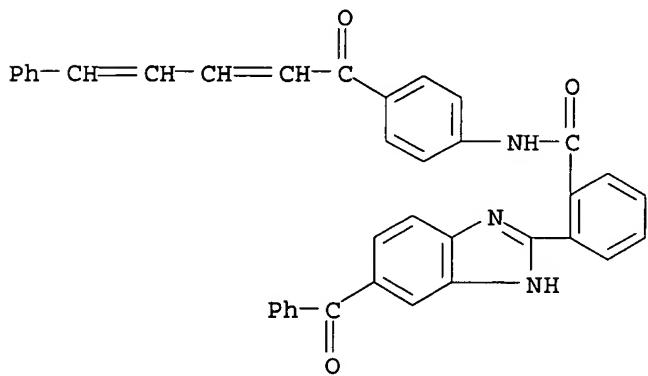
CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[3-(3-nitrophenyl)-1-

oxo-2-propenyl]phenyl] - (9CI) (CA INDEX NAME)



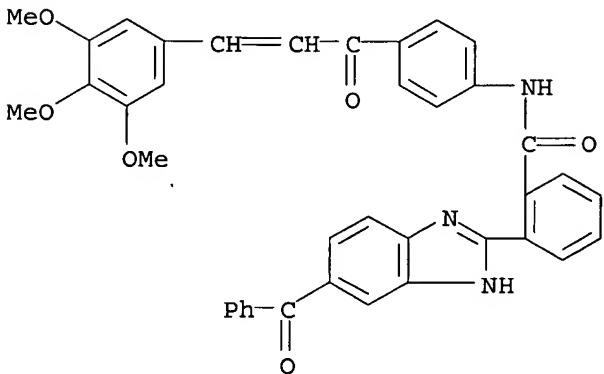
RN 244302-28-1 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-(1-oxo-5-phenyl-2,4-pentadienyl)phenyl]- (9CI) (CA INDEX NAME)



RN 244302-29-2 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[1-oxo-3-(3,4,5-trimethoxyphenyl)-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)



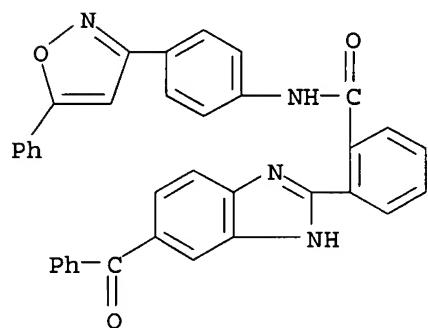
IT 244302-30-5P 244302-31-6P 244302-32-7P  
244302-33-8P 244302-34-9P 244302-35-0P

244302-36-1P 244302-37-2P 244302-38-3P  
 244302-39-4P 244302-40-7P 244302-41-8P  
 244302-42-9P 244302-43-0P 244302-44-1P  
 244302-45-2P 244302-47-4P 244302-48-5P  
 244302-49-6P 244302-50-9P 244302-51-0P  
 244302-52-1P 244302-53-2P 244302-54-3P  
 244302-55-4P 244302-56-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prep. and antitubercular activity of isoxazoles and cyanopyridines)

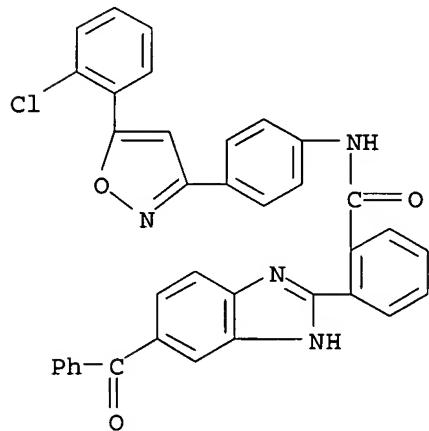
RN 244302-30-5 CAPPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-(5-phenyl-3-isoxazolyl)phenyl]- (9CI) (CA INDEX NAME)



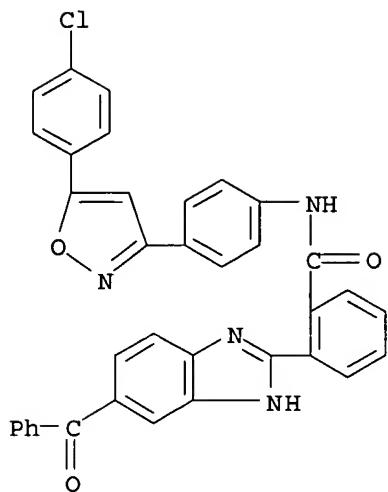
RN 244302-31-6 CAPPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(2-chlorophenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



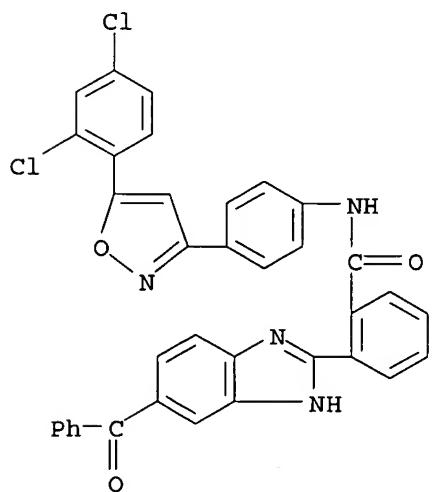
RN 244302-32-7 CAPPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(4-chlorophenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



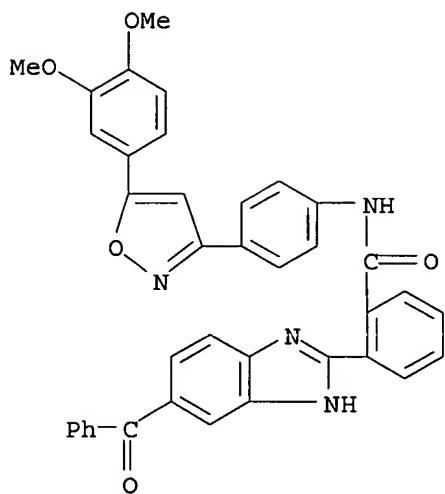
RN 244302-33-8 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(2,4-dichlorophenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



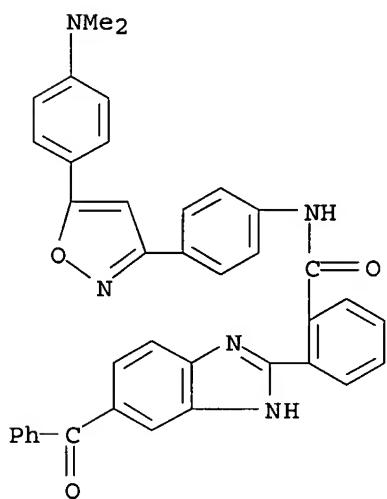
RN 244302-34-9 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(3,4-dimethoxyphenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



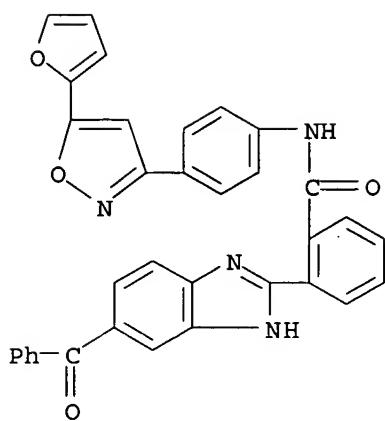
RN 244302-35-0 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-[4-(dimethylamino)phenyl]-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



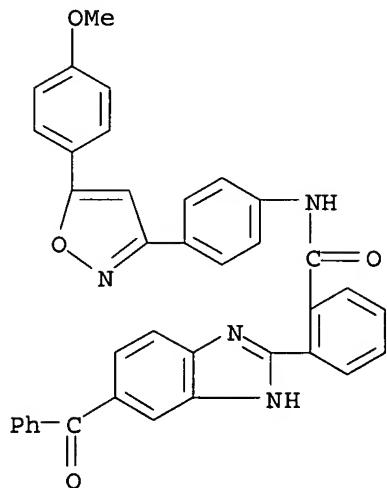
RN 244302-36-1 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(2-furanyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



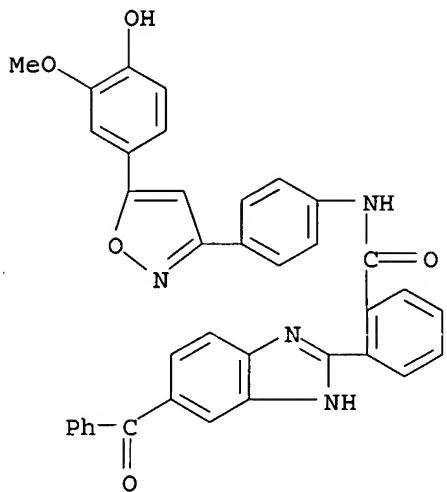
RN 244302-37-2 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(4-methoxyphenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



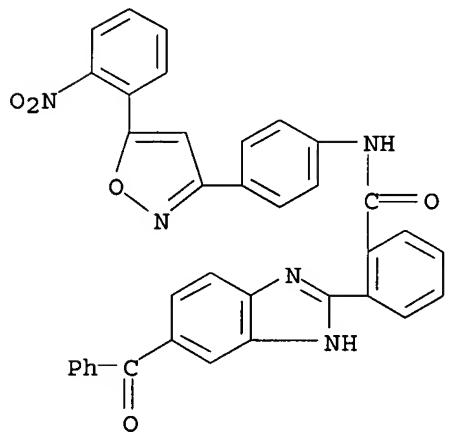
RN 244302-38-3 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(4-hydroxy-3-methoxyphenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



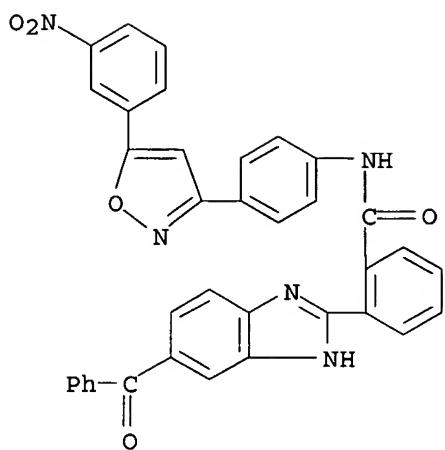
RN 244302-39-4 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(2-nitrophenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



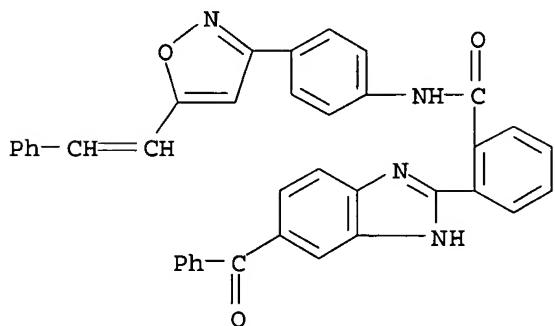
RN 244302-40-7 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(3-nitrophenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



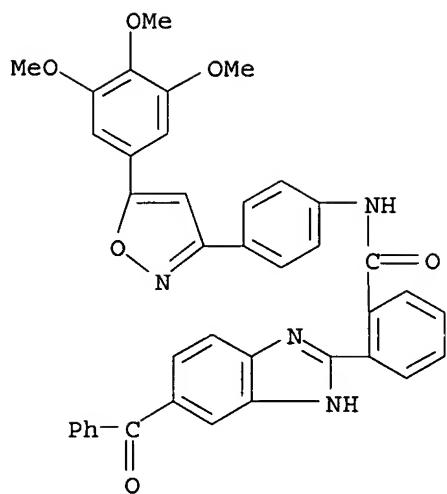
RN 244302-41-8 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(2-phenylethenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



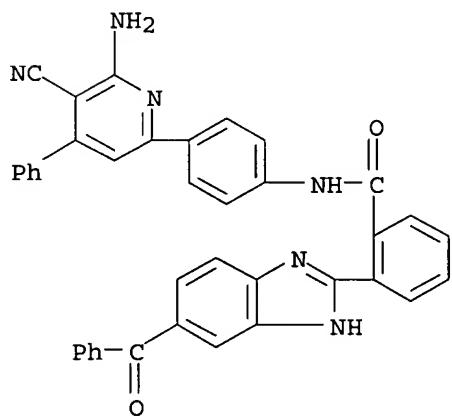
RN 244302-42-9 CAPLUS

CN Benzamide, 2-(5-benzoyl-1H-benzimidazol-2-yl)-N-[4-[5-(3,4,5-trimethoxyphenyl)-3-isoxazolyl]phenyl]- (9CI) (CA INDEX NAME)



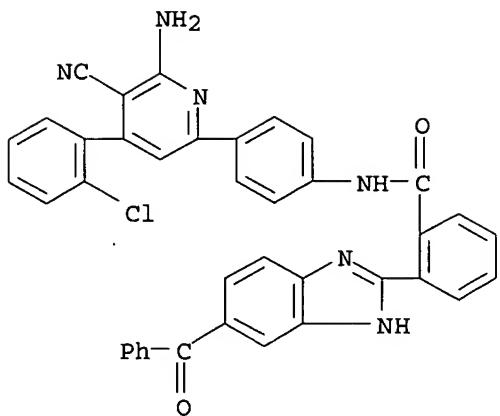
RN 244302-43-0 CAPLUS

CN Benzamide, N-[4-(6-amino-5-cyano-4-phenyl-2-pyridinyl)phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



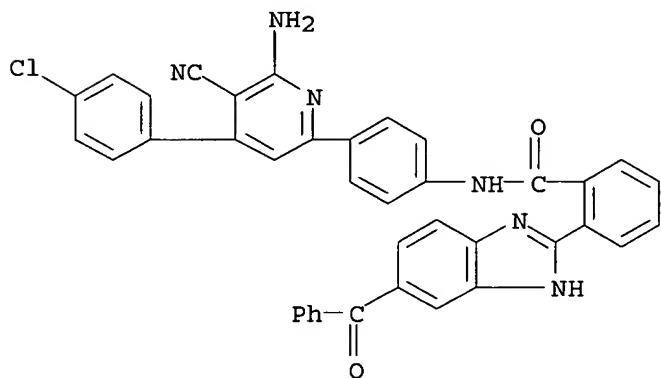
RN 244302-44-1 CAPLUS

CN Benzamide, N-[4-(6-amino-4-(2-chlorophenyl)-5-cyano-2-pyridinyl)phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



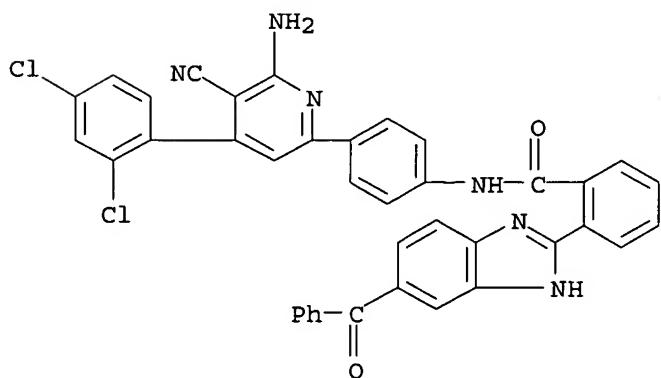
RN 244302-45-2 CAPLUS

CN Benzamide, N-[4-[6-amino-4-(4-chlorophenyl)-5-cyano-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



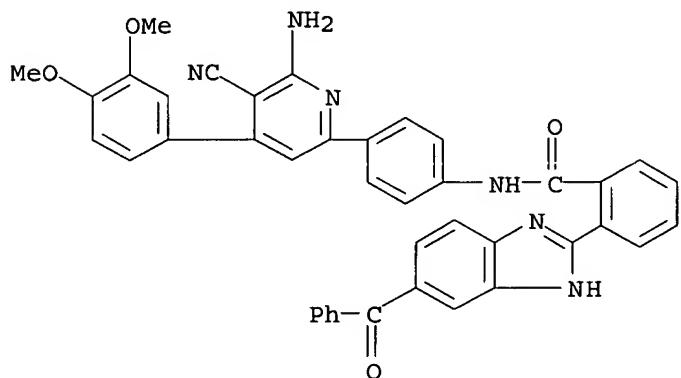
RN 244302-47-4 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(2,4-dichlorophenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



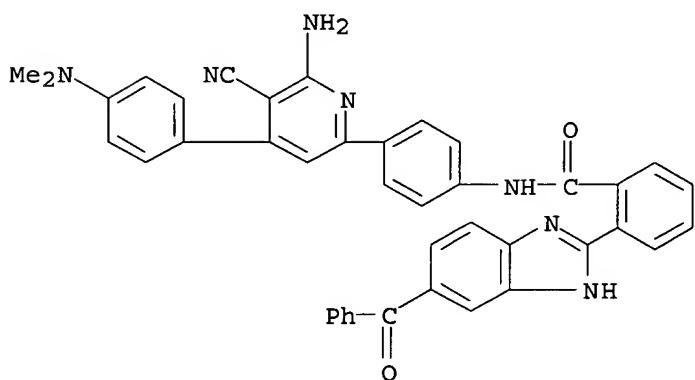
RN 244302-48-5 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(3,4-dimethoxyphenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



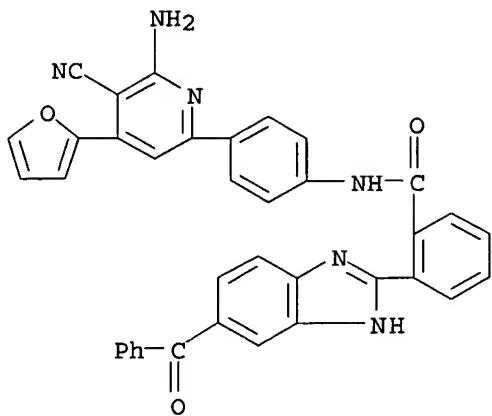
RN 244302-49-6 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-[4-(dimethylamino)phenyl]-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



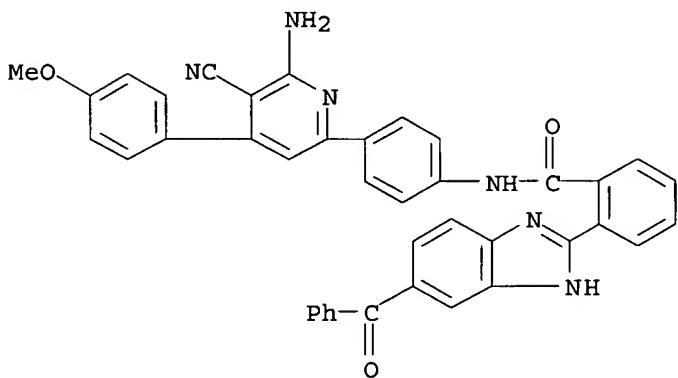
RN 244302-50-9 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(2-furanyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



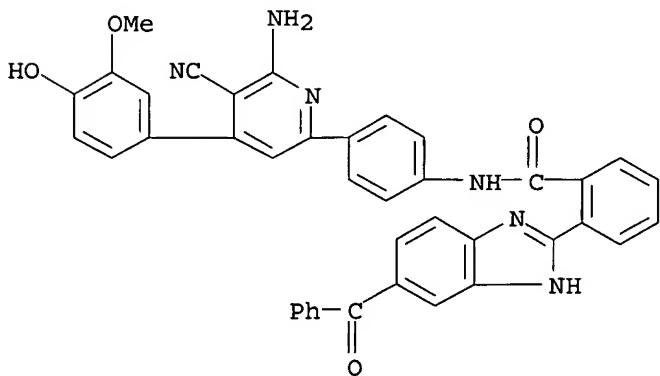
RN 244302-51-0 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(4-methoxyphenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



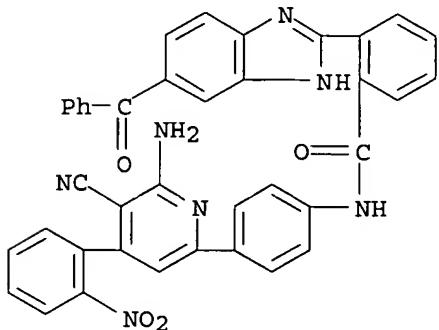
RN 244302-52-1 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(4-hydroxy-3-methoxyphenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



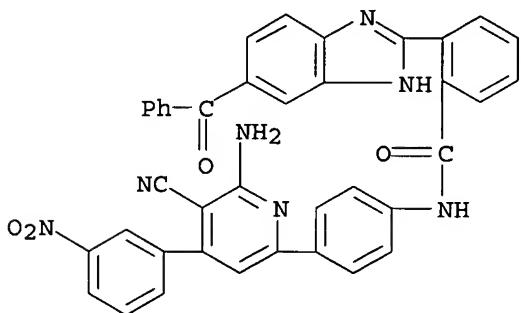
RN 244302-53-2 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(2-nitrophenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl) - (9CI) (CA INDEX NAME)



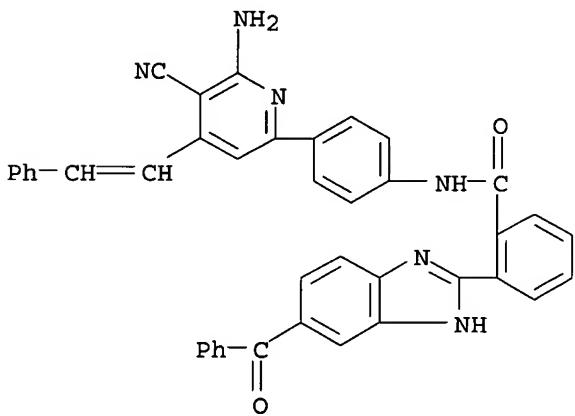
RN 244302-54-3 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(3-nitrophenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl) - (9CI) (CA INDEX NAME)



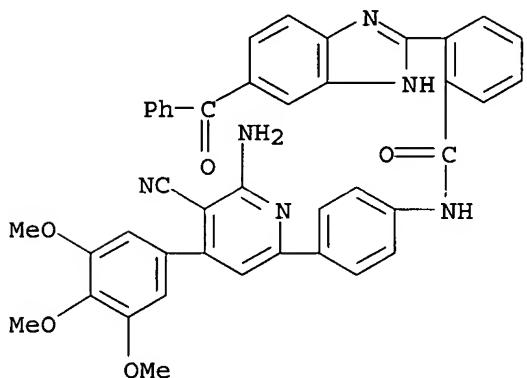
RN 244302-55-4 CAPLUS

CN Benzamide, N-[4-[6-amino-5-cyano-4-(2-phenylethenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl) - (9CI) (CA INDEX NAME)



RN 244302-56-5 CAPLUS

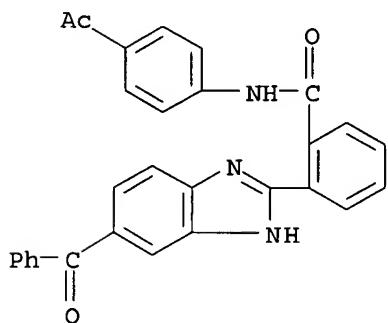
CN Benzamide, N-[4-[6-amino-5-cyano-4-(3,4,5-trimethoxyphenyl)-2-pyridinyl]phenyl]-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



IT 244302-57-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(prep. and antitubercular activity of isoxazoles and cyanopyridines)

RN 244302-57-6 CAPLUS

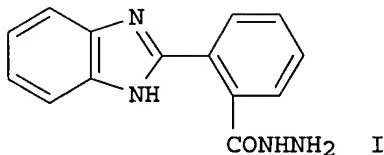
CN Benzamide, N-(4-acetylphenyl)-2-(5-benzoyl-1H-benzimidazol-2-yl)- (9CI)  
(CA INDEX NAME)

REFERENCE COUNT:

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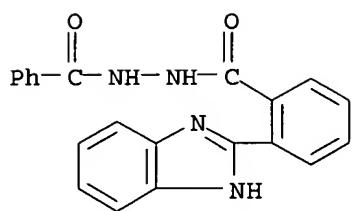
THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
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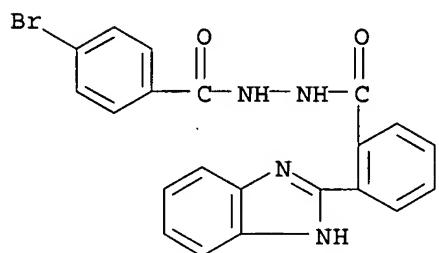


AB New arylamides, sulfonamides, and 5-oxoimidazolines have been synthesized by condensation of the acid hydrazide I with arom. acid chlorides, arylsulfonyl chlorides, and azlactones in dry pyridine. All the products were evaluated in vitro for their antimicrobial activity against several microbes and antitubercular activity against *Mycobacterium tuberculosis* H37Rv.

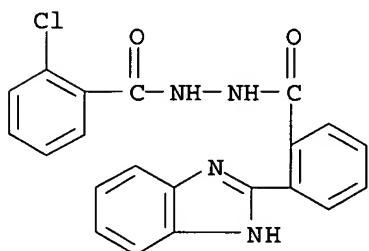
ACCESSION NUMBER: 1999:108437 CAPLUS  
 DOCUMENT NUMBER: 130:252290  
 TITLE: Synthesis of some arylamides, sulfonamides and 5-oxoimidazolines as novel bioactive compounds derived from benzimidazole  
 AUTHOR(S): Kagthara, Preeti R.; Shah, Niraj S.; Doshi, Rajeev K.; Parekh, H. H.  
 CORPORATE SOURCE: Department of Chemistry, Saurashtra University, Rajkot, 360 005, India  
 SOURCE: Heterocyclic Communications (1998), 4(6), 561-566  
 CODEN: HCOCMEX; ISSN: 0793-0283  
 PUBLISHER: Freund Publishing House Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 221466-81-5P 221466-83-7P 221466-85-9P  
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   221467-58-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
     (prepn. of arylamides, sulfonamides, and oxoimidazolines as bactericides, fungicides, and antitubercular agents)  
 RN 221466-81-5 CAPLUS  
 CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-benzoylhydrazide (9CI) (CA INDEX NAME)



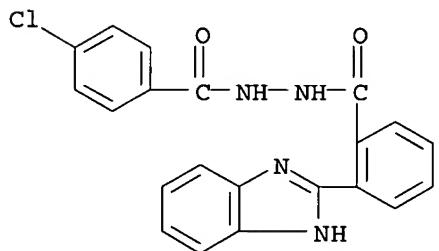
RN 221466-83-7 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(4-bromobenzoyl)hydrazide (9CI)  
(CA INDEX NAME)

RN 221466-85-9 CAPLUS

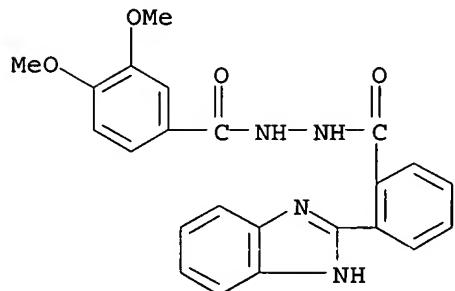
CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(2-chlorobenzoyl)hydrazide  
(9CI) (CA INDEX NAME)

RN 221466-86-0 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(4-chlorobenzoyl)hydrazide  
(9CI) (CA INDEX NAME)

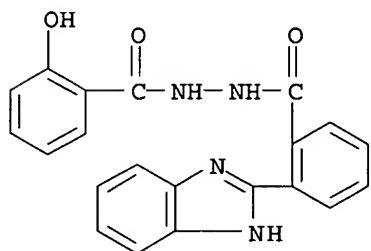
RN 221466-88-2 CAPLUS

CN Benzoic acid, 3,4-dimethoxy-, 2-[2-(1H-benzimidazol-2-yl)benzoyl]hydrazide  
 (9CI) (CA INDEX NAME)



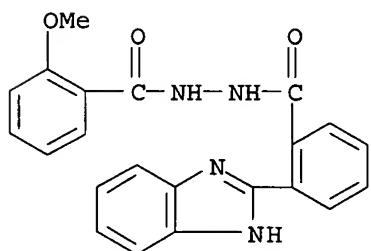
RN 221466-90-6 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(2-hydroxybenzoyl)hydrazide  
 (9CI) (CA INDEX NAME)



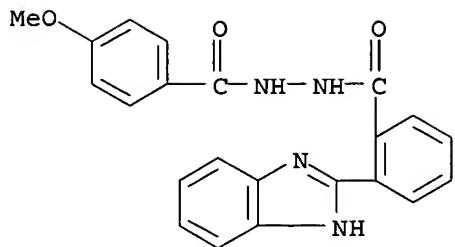
RN 221466-92-8 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(2-methoxybenzoyl)hydrazide  
 (9CI) (CA INDEX NAME)



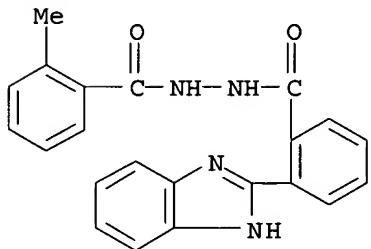
RN 221466-94-0 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(4-methoxybenzoyl)hydrazide  
 (9CI) (CA INDEX NAME)



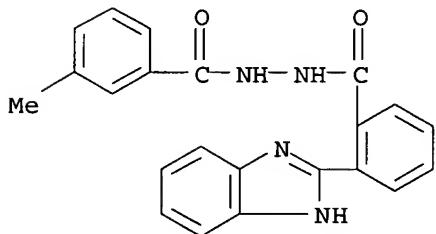
RN 221466-95-1 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(2-methylbenzoyl)hydrazide  
(9CI) (CA INDEX NAME)



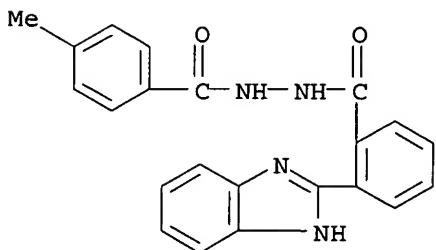
RN 221466-96-2 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(3-methylbenzoyl)hydrazide  
(9CI) (CA INDEX NAME)

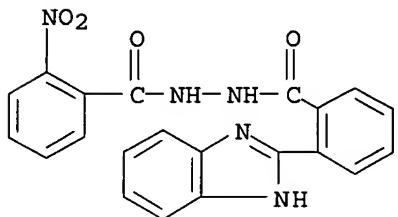


RN 221466-97-3 CAPLUS

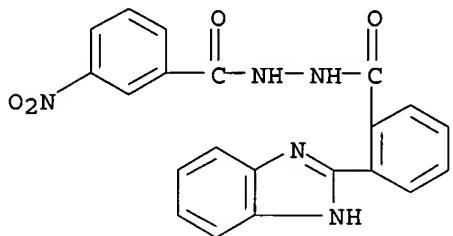
CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(4-methylbenzoyl)hydrazide  
(9CI) (CA INDEX NAME)



RN 221466-99-5 CAPLUS

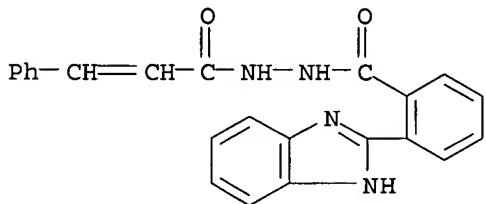
CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(2-nitrobenzoyl)hydrazide (9CI)  
(CA INDEX NAME)

RN 221467-00-1 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(3-nitrobenzoyl)hydrazide (9CI)  
(CA INDEX NAME)

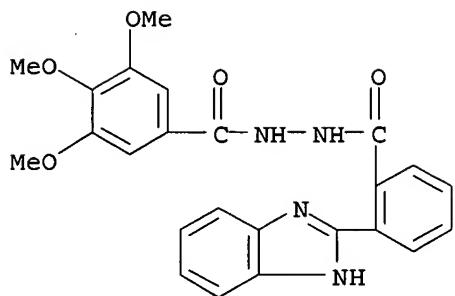
RN 221467-01-2 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(1-oxo-3-phenyl-2-propenyl)hydrazide (9CI) (CA INDEX NAME)



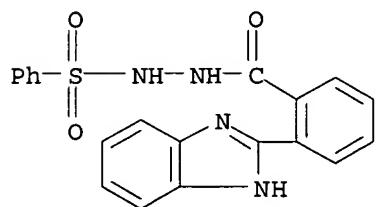
RN 221467-03-4 CAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[2-(1H-benzimidazol-2-yl)benzoyl]hydrazide (9CI) (CA INDEX NAME)



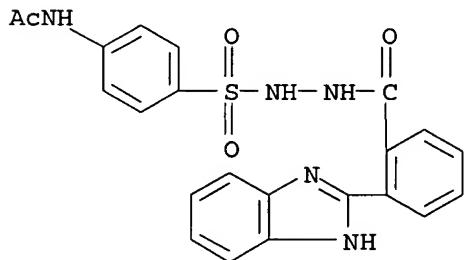
RN 221467-04-5 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-(phenylsulfonyl)hydrazide (9CI)  
(CA INDEX NAME)



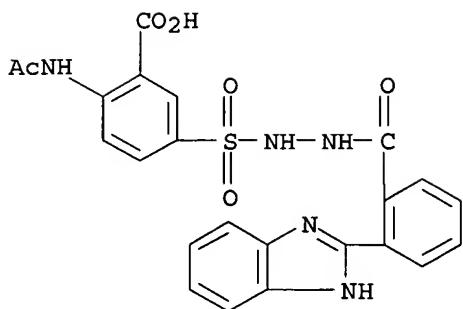
RN 221467-05-6 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[ [4-(acetylamino)phenyl]sulfonyl]hydrazide (9CI) (CA INDEX NAME)



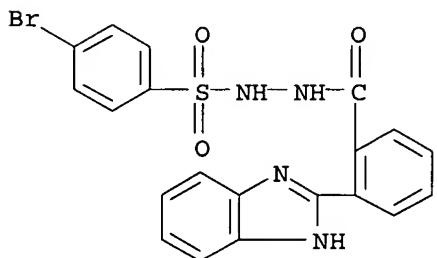
RN 221467-06-7 CAPLUS

CN Benzoic acid, 2-(acetylamino)-5-[[2-[2-(1H-benzimidazol-2-yl)benzoyl]hydrazino]sulfonyl]- (9CI) (CA INDEX NAME)



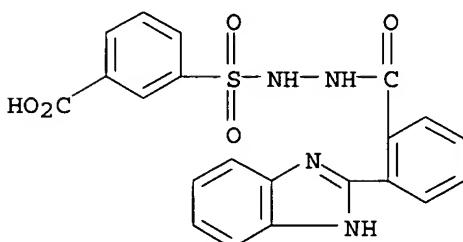
RN 221467-07-8 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[(4-bromophenyl)sulfonyl]hydrazide (9CI) (CA INDEX NAME)



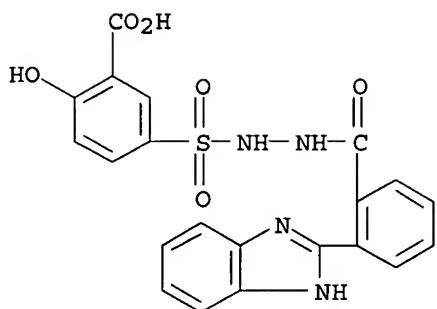
RN 221467-08-9 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[(3-carboxyphenyl)sulfonyl]hydrazide (9CI) (CA INDEX NAME)



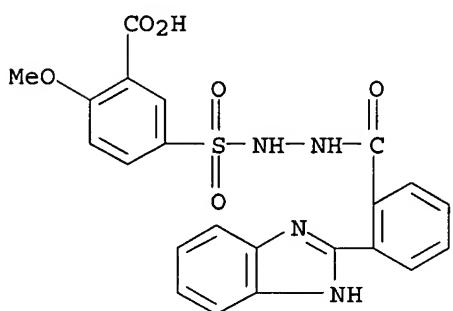
RN 221467-09-0 CAPLUS

CN Benzoic acid, 5-[[2-[2-(1H-benzimidazol-2-yl)benzoyl]hydrazino]sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



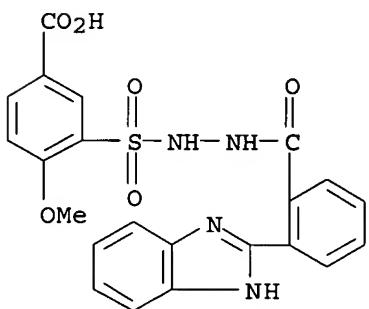
RN 221467-10-3 CAPLUS

CN Benzoic acid, 5-[(2-[(1H-benzimidazol-2-yl)benzoyl]hydrazino)sulfonyl]-2-methoxy- (9CI) (CA INDEX NAME)



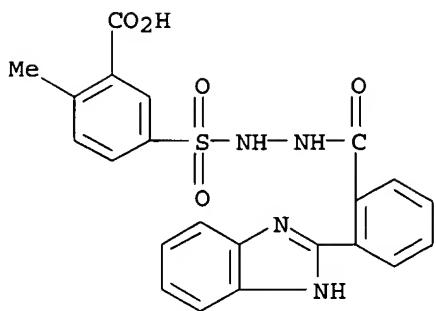
RN 221467-11-4 CAPLUS

CN Benzoic acid, 3-[(2-[(1H-benzimidazol-2-yl)benzoyl]hydrazino)sulfonyl]-4-methoxy- (9CI) (CA INDEX NAME)



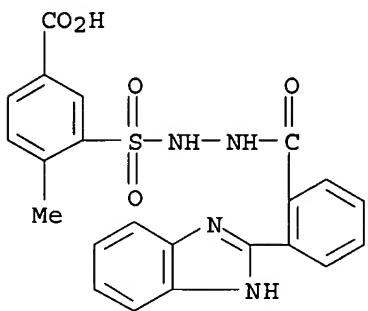
RN 221467-12-5 CAPLUS

CN Benzoic acid, 5-[(2-[(1H-benzimidazol-2-yl)benzoyl]hydrazino)sulfonyl]-2-methyl- (9CI) (CA INDEX NAME)



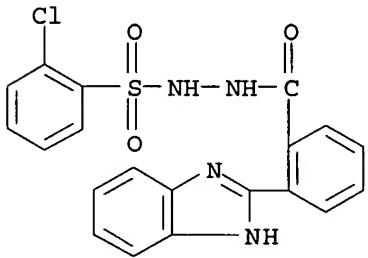
RN 221467-13-6 CAPLUS

CN Benzoic acid, 3-[(2-[(1H-benzimidazol-2-yl)benzoyl]hydrazino)sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



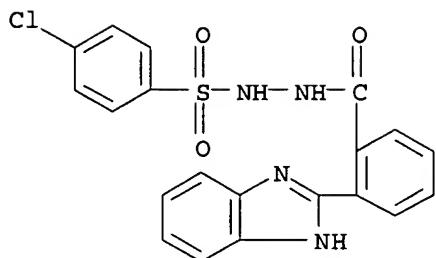
RN 221467-14-7 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[(2-chlorophenyl)sulfonyl]hydrazide (9CI) (CA INDEX NAME)



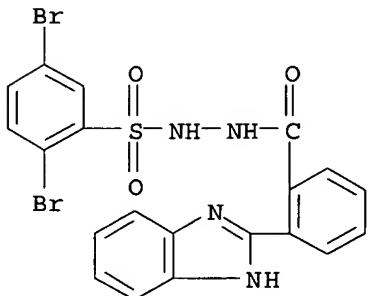
RN 221467-15-8 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[(4-chlorophenyl)sulfonyl]hydrazide (9CI) (CA INDEX NAME)



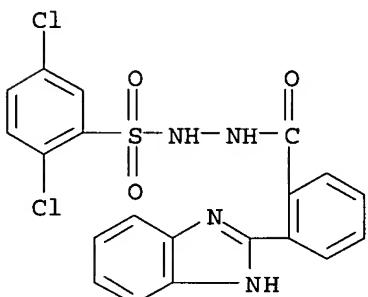
RN 221467-16-9 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[(2,5-dibromophenyl)sulfonyl]hydrazide (9CI) (CA INDEX NAME)



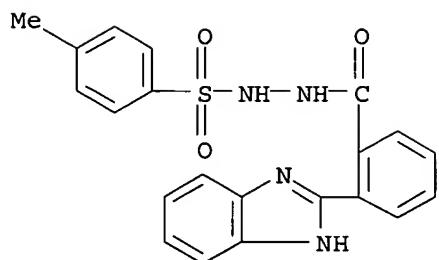
RN 221467-17-0 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[(2,5-dichlorophenyl)sulfonyl]hydrazide (9CI) (CA INDEX NAME)



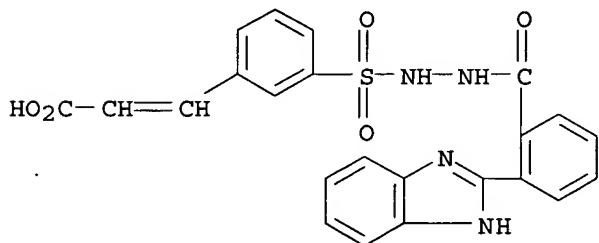
RN 221467-18-1 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[(4-methylphenyl)sulfonyl]hydrazide (9CI) (CA INDEX NAME)



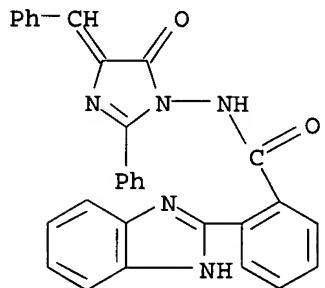
RN 221467-19-2 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, 2-[3-(2-carboxyethenyl)phenyl]sulfonylhydrazide (9CI) (CA INDEX NAME)



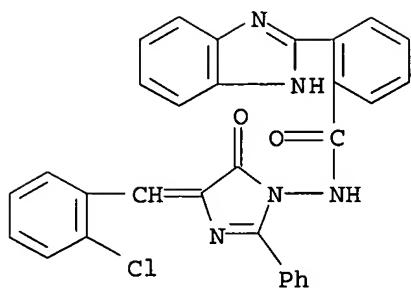
RN 221467-20-5 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-5-oxo-2-phenyl-4-(phenylmethylene)-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



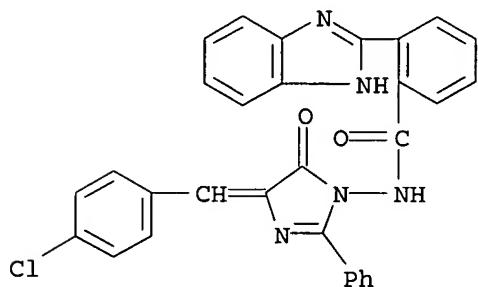
RN 221467-21-6 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4-[(2-chlorophenyl)methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



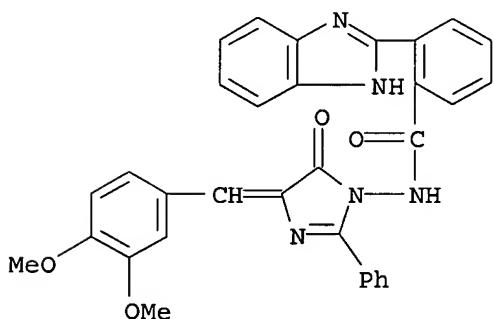
RN 221467-22-7 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4-[(4-chlorophenyl)methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



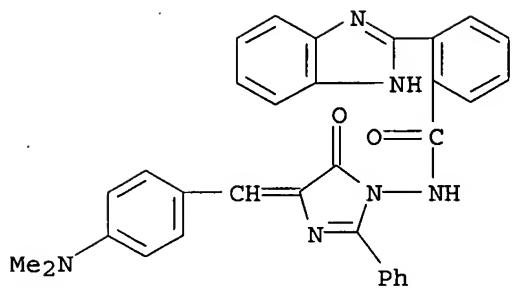
RN 221467-23-8 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4-[(3,4-dimethoxyphenyl)methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



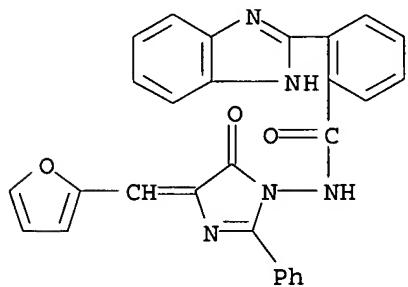
RN 221467-24-9 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4-[[4-(dimethylamino)phenyl]methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



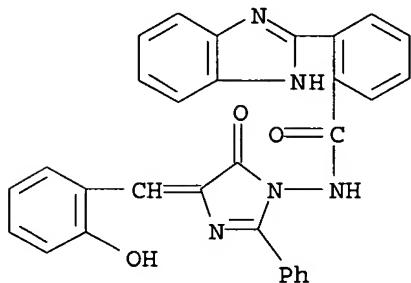
RN 221467-26-1 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4-(2-furanylmethylene)-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



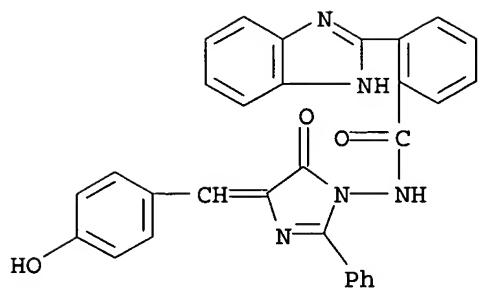
RN 221467-29-4 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-4-[(2-hydroxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



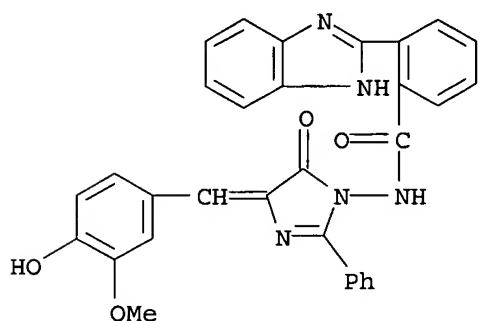
RN 221467-32-9 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-4-[(4-hydroxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



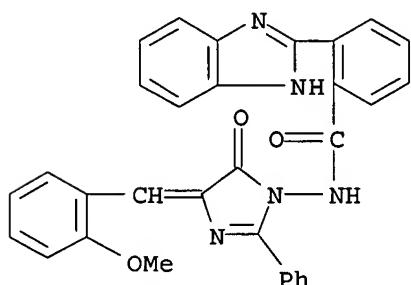
RN 221467-36-3 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-4-[(4-hydroxy-3-methoxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



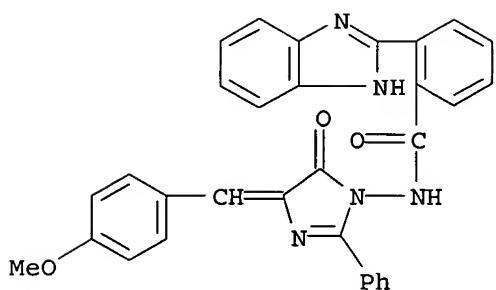
RN 221467-41-0 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-4-[(2-methoxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



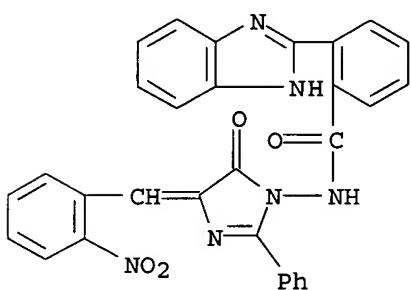
RN 221467-45-4 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-4-[(4-methoxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



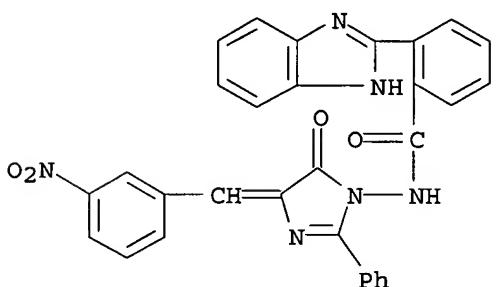
RN 221467-48-7 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-4-[(2-nitrophenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



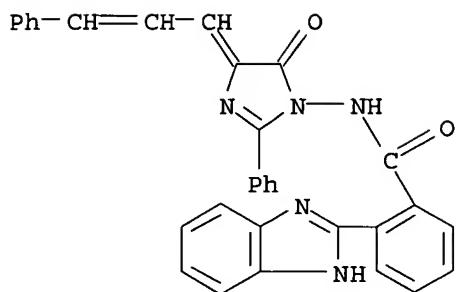
RN 221467-52-3 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-4-[(3-nitrophenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



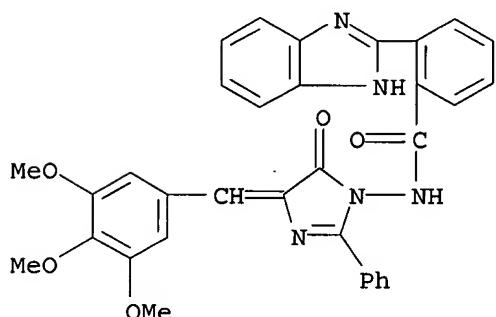
RN 221467-55-6 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-5-oxo-2-phenyl-4-(3-phenyl-2-propenylidene)-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)



RN 221467-58-9 CAPLUS

CN Benzamide, 2-(1H-benzimidazol-2-yl)-N-[4,5-dihydro-5-oxo-2-phenyl-4-[(3,4,5-trimethoxyphenyl)methylene]-1H-imidazol-1-yl]-(9CI) (CA INDEX NAME)

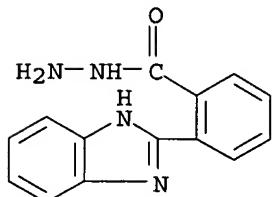


IT 148438-23-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prep. of arylamides, sulfonamides, and oxoimidazolines as bactericides, fungicides, and antitubercular agents)

RN 148438-23-7 CAPLUS

CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, hydrazide (9CI) (CA INDEX NAME)

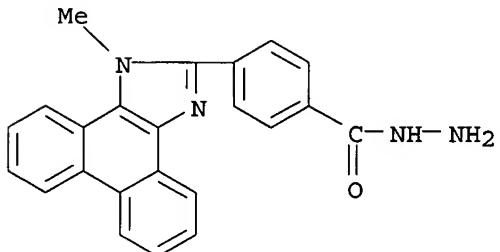


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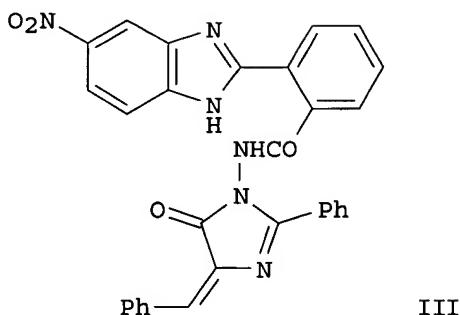
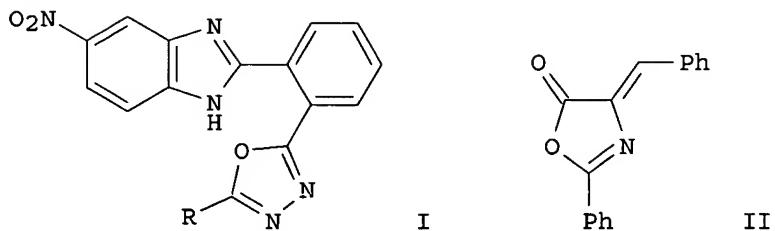
14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB The title reagent reacts selectively with aliph. and arom. aldehydes in the presence of sulfuric acid to form highly fluorescent derivs. which are used for the HPLC detn. of the aldehydes with laser-induced fluorescence detection.  
 ACCESSION NUMBER: 1997:390891 CAPLUS  
 DOCUMENT NUMBER: 127:144546  
 TITLE: 4-(1-Methyl-2-phenanthro[9,10-d]imidazol-2-yl)-benzohydrazide as a derivatization reagent for aldehydes in high-performance liquid chromatography with conventional and laser-induced fluorescence detection  
 AUTHOR(S): Iwata, Tetsuharu; Ishimaru, Takayuki; Yamaguchi, Masatoshi  
 CORPORATE SOURCE: Fac. Pharmaceutical Sci., Fukuoka Univ., Fukuoka, 814-80, Japan  
 SOURCE: Analytical Sciences (1997), 13(3), 501-504  
 CODEN: ANSCEN; ISSN: 0910-6340  
 PUBLISHER: Japan Society for Analytical Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 160768-24-1  
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (4-(1-Methyl-2-phenanthro[9,10-d]imidazol-2-yl)-benzohydrazide as a derivatization reagent for aldehydes in high-performance liq. chromatog. with conventional and laser-induced fluorescence detection)  
 RN 160768-24-1 CAPLUS  
 CN Benzoic acid, 4-(1-methyl-1H-phenanthro[9,10-d]imidazol-2-yl)-, hydrazide (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



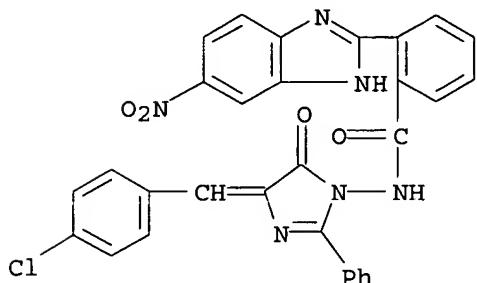
AB 1,3,4-Oxadiazoles I (R = Ph, substituted Ph, CH:CHPh) have been synthesized by the cyclocondensation of acid hydrazide of 5-nitro-o-benzoylene-2,1-benzimidazole with different arom. acids in presence of POCl<sub>3</sub>, the same acid hydrazide was made to react with different azlactones II in dry pyridine which yielded 5-oxo-imidazolines III . All the products were screened for their antimicrobial activity against several microbes and antitubercular activity against Mycobacterium tuberculosis H37 Rv.

ACCESSION NUMBER: 1997:352800 CAPLUS  
 DOCUMENT NUMBER: 127:81401  
 TITLE: Synthesis of some novel 1,3,4-oxadiazoles and 5-oxo-imidazolines as potent biologically active agents  
 AUTHOR(S): Joshi, Dharti G.; Oza, Haresh B.; Parekh, H. H.  
 CORPORATE SOURCE: Department of Chemistry, Saurashtra University, Rajkot, 360 005, India  
 SOURCE: Heterocyclic Communications (1997), 3(2), 169-174  
 CODEN: HCOMEX; ISSN: 0793-0283  
 PUBLISHER: Freund  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 191804-66-7P 191804-73-6P 191804-74-7P  
 191804-75-8P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prep., bactericidal, fungicidal, and tuberculostatic activity of (benzimidazolylphenyl)oxadiazoles and (benzimidazolylbenzamido)imidazol

ones)

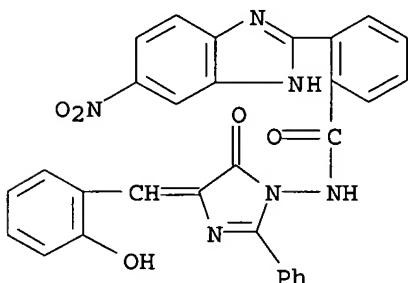
RN 191804-66-7 CAPLUS

CN Benzamide, N-[4-[(4-chlorophenyl)methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



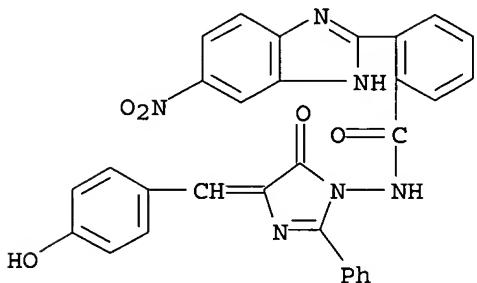
RN 191804-73-6 CAPLUS

CN Benzamide, N-[4,5-dihydro-4-[(2-hydroxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



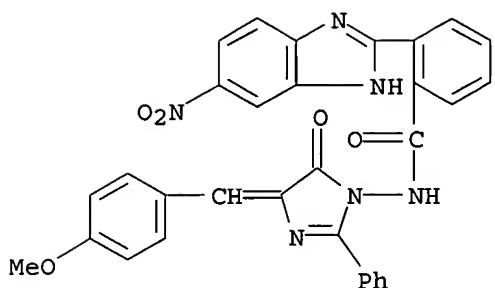
RN 191804-74-7 CAPLUS

CN Benzamide, N-[4,5-dihydro-4-[(4-hydroxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 191804-75-8 CAPLUS

CN Benzamide, N-[4,5-dihydro-4-[(4-methoxyphenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

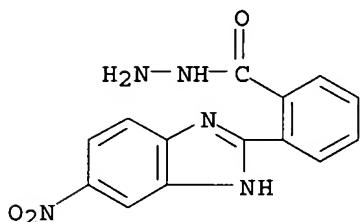


IT 191804-48-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn., bactericidal, fungicidal, and tuberculostatic activity of (benzimidazolylphenyl)oxadiazoles and (benzimidazolylbenzamido)imidazolones)

RN 191804-48-5 CAPLUS

CN Benzoic acid, 2-(5-nitro-1H-benzimidazol-2-yl)-, hydrazide (9CI) (CA INDEX NAME)



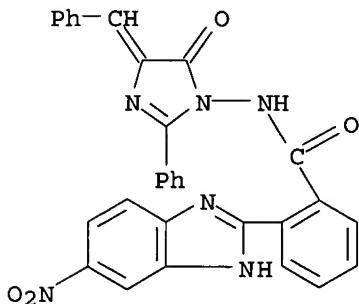
IT 191804-64-5P 191804-65-6P 191804-68-9P

191804-70-3P 191804-72-5P 191804-76-9P  
191804-77-0P 191804-78-1P 191804-80-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn., bactericidal, fungicidal, and tuberculostatic activity of (benzimidazolylphenyl)oxadiazoles and (benzimidazolylbenzamido)imidazolones)

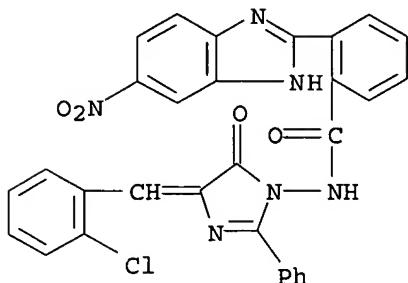
RN 191804-64-5 CAPLUS

CN Benzamide, N-[4,5-dihydro-5-oxo-2-phenyl-4-(phenylmethylen)-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



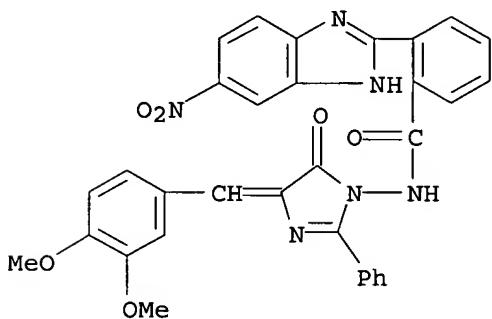
RN 191804-65-6 CAPLUS

CN Benzamide, N-[4-[(2-chlorophenyl)methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



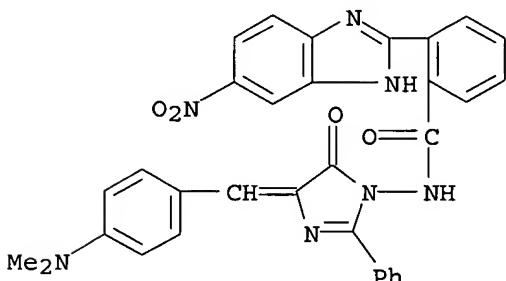
RN 191804-68-9 CAPLUS

CN Benzamide, N-[4-[(3,4-dimethoxyphenyl)methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



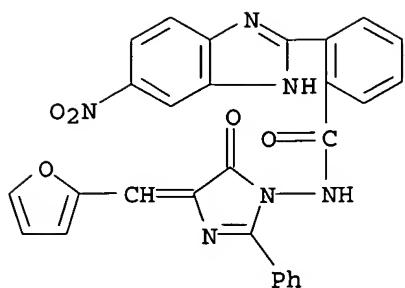
RN 191804-70-3 CAPLUS

CN Benzamide, N-[4-[(4-(dimethylamino)phenyl)methylene]-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



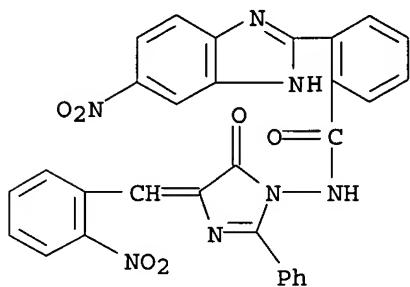
RN 191804-72-5 CAPLUS

CN Benzamide, N-[4-(2-furanylmethylene)-4,5-dihydro-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



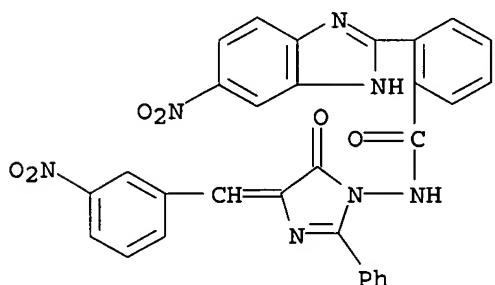
RN 191804-76-9 CAPLUS

CN Benzamide, N-[4,5-dihydro-4-[(2-nitrophenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



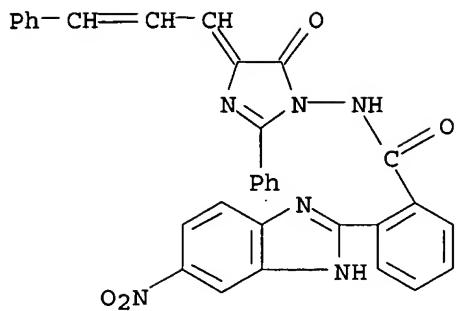
RN 191804-77-0 CAPLUS

CN Benzamide, N-[4,5-dihydro-4-[(3-nitrophenyl)methylene]-5-oxo-2-phenyl-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



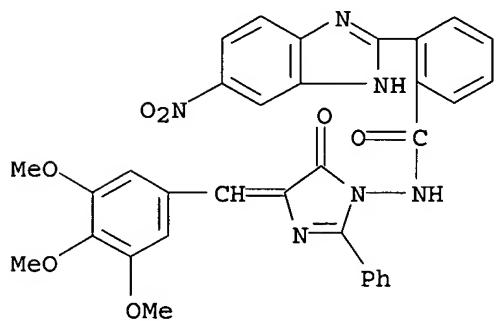
RN 191804-78-1 CAPLUS

CN Benzamide, N-[4,5-dihydro-5-oxo-2-phenyl-4-(3-phenyl-2-propenylidene)-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

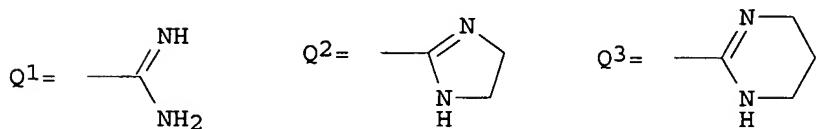
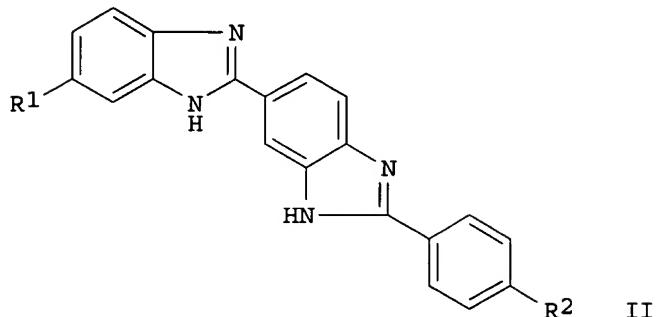
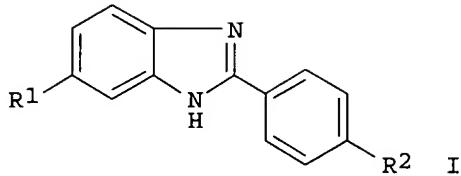


RN 191804-80-5 CAPLUS

CN Benzamide, N-[4,5-dihydro-5-oxo-2-phenyl-4-[(3,4,5-trimethoxyphenyl)methylene]-1H-imidazol-1-yl]-2-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 23 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
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AB The synthesis of 14 monocationic and six dicationic analogs of Hoechst 33258 is described. Seven monocationic benzimidazoles I [R1 = Q1, Q2, Q3; R2 = OH, OMe, OEt] and 3 dicationic benzimidazoles I [R1 = R2 = Q1, Q2, Q3] are obtained in 5 steps starting from 4-acetamidobenzonitrile. Seven monocationic bisbenzimidazoles II [R1 = Q1, Q2, Q3; R2 = OH, OMe, OEt] are synthesized in 4 steps starting from 4-amino-3-nitrobenzonitrile (III). The dicationic bisbenzimidazoles II [R1 = R2 = Q1, Q2, Q3] are obtained in 6 steps starting from III.

ACCESSION NUMBER: 1996:582799 CAPLUS

DOCUMENT NUMBER: 125:328595

TITLE: Synthesis of mono-cationic and dicationic analogs of Hoechst 33258

AUTHOR(S): Czarny, Agnieszka; Wilson, W. D.; Boykin, David W.

CORPORATE SOURCE: Dep. Chem. Cent. Biotechnol. Drug Design, Georgia State Univ., Atlanta, GA, 30303-3083, USA

SOURCE: Journal of Heterocyclic Chemistry (1996), 33(4), 1393-1397

PUBLISHER: CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: HeteroCorporation

LANGUAGE: Journal

IT 183296-08-4 LANGUAGE: English

RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material; prepn. of mono- and dicationic benzimidazoles and bisbenzimidazoles as analogs of Hoechst 33258)

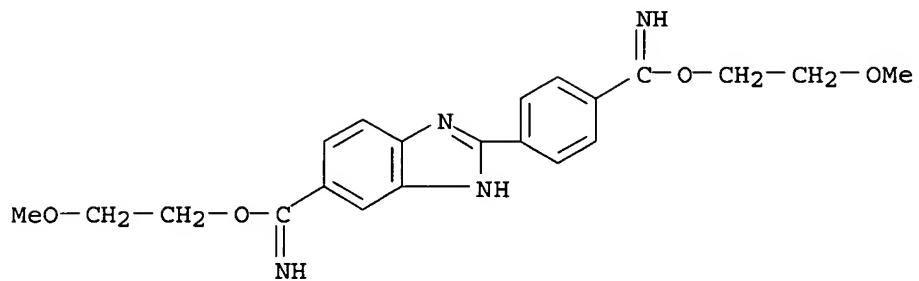
RN 183296-08-4 CAPLUS

CN 1H-Benzimidazole-5-carboximidic acid, 2-[4-[imino(2-

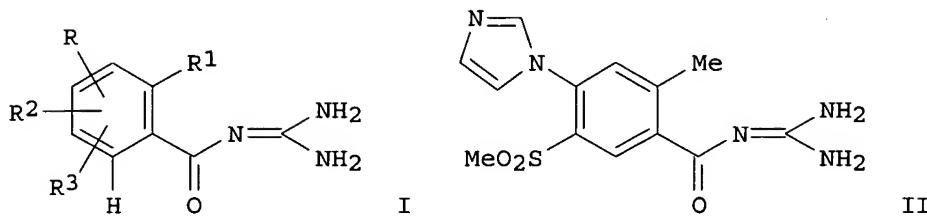
07/31/2003

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methoxyethoxy)methyl]phenyl]-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 24 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB Title compds. (I; R = heterocyclyl, heteroaryl; R1 = fluoromethyl, halo, alkyl, alkoxy, etc.; R2,R3 = H, halo, alkyl, alkoxy, etc) were prep'd. as hydrogen ion-sodium antiporter inhibitors (no data). Thus, 2-methyl-4-chloro-5-methylsulfonylbenzoic acid was aminated by imidazole and the Me ester amidated by guanidine to give title compd. II.

ACCESSION NUMBER: 1996:303752 CAPLUS

DOCUMENT NUMBER: 124:343303

TITLE: Preparation of N-(heterocyclylbenzoyl)guanidines as hydrogen ion-sodium antiporter inhibitors

INVENTOR(S): Gericke, Rolf; Dorsch, Dieter; Baumgarth, Manfred; Minck, Klaus-Otto; Beier, Norbert

PATENT ASSIGNEE(S): Merck Patent GmbH, Germany

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

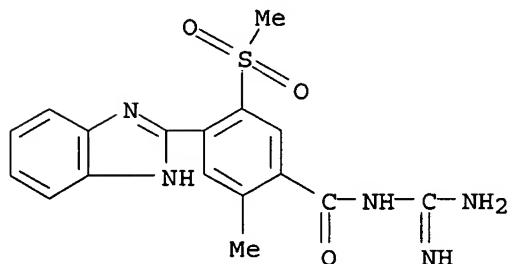
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 699666	A1	19960306	EP 1995-113307	19950824
EP 699666	B1	19990107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
DE 4430861	A1	19960307	DE 1994-4430861	19940831
SK 281446	B6	20010312	SK 1995-1029	19950821
AU 9530250	A1	19960314	AU 1995-30250	19950824
AU 702258	B2	19990218		
AT 175406	E	19990115	AT 1995-113307	19950824
ES 2129716	T3	19990616	ES 1995-113307	19950824
CA 2157146	AA	19960301	CA 1995-2157146	19950829
CZ 286400	B6	20000412	CZ 1995-2202	19950829
NO 9503404	A	19960301	NO 1995-3404	19950830
ZA 9507284	A	19960402	ZA 1995-7284	19950830
HU 73183	A2	19960628	HU 1995-2548	19950830
CN 1126720	A	19960717	CN 1995-116901	19950830
CN 1058004	B	20001101		
US 5753680	A	19980519	US 1995-520780	19950830
RU 2152390	C1	20000710	RU 1995-114847	19950830
PL 183393	B1	20020628	PL 1995-310224	19950830
JP 08073427	A2	19960319	JP 1995-245151	19950831
BR 9503881	A	19960917	BR 1995-3881	19950831
PRIORITY APPLN. INFO.:			DE 1994-4430861	A 19940831
OTHER SOURCE(S):		MARPAT 124:343303		
IT 176644-25-0P				

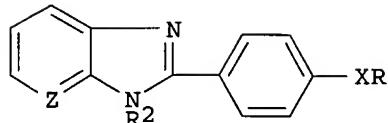
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of N-(heterocyclylbenzoyl)guanidines as hydrogen ion-sodium antiporter inhibitors)

RN 176644-25-0 CAPLUS

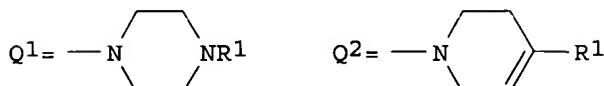
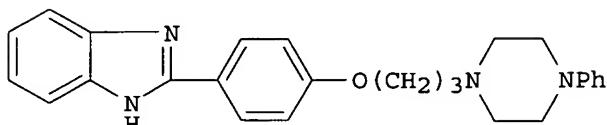
CN Benzamide, N-(aminoiminomethyl)-4-(1H-benzimidazol-2-yl)-2-methyl-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)



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I

*Sear*

II

**AB** Benzimidazoles and imidazopyridines I [R = Q1, or Q2, where R1 = aryl or heteroaryl; R2 = H or C1-6 alkyl; X = Y(CH2)n, CONH(CH2)p, NHCO(CH2)p, C3-6 alkylene, alkenylene, alkynylene; Y = O, S, or NH; n = 2-5; p = 1-4; Z = N or CH] and their isomers and acid addn. salts are described. I are useful as CNS agents, particularly antipsychotic agents, and for the treatment of other disorders which respond to dopaminergic blockade, including psychotic depression, substance abuse, and compulsive disorders. For example, cyclization of 1,2-diaminobenzene with 4-[3-(4-phenylpiperazin-1-yl)propoxy]benzaldehyde in nitrobenzene [oxidizing solvent] at 160.degree. gave title benzimidazole deriv. II. Assays for inhibition of [3H]-spiperone binding to human D3 and D2 receptors by II gave IC50 values of 1.0 and 406 nM, resp., showing selectivity for D3 receptor. II also had ED50 of 2.3 mg/kg i.p. for inhibiting locomotor activity in rats.

ACCESSION NUMBER: 1996:150249 CAPLUS

DOCUMENT NUMBER: 124:202263

TITLE: Benzimidazole and imidazopyridine derivatives, their preparation, and their use as dopaminergic agents selective for the dopamine D3 receptor

INVENTOR(S): Downing, Dennis Michael; Glase, Shelly Ann; Johnson, Stephen Joseph; Wise, Lawrence David; Wright, Jonathan Leonard

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: PCT Int. Appl., 54 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9530659	A1	19951116	WO 1995-US3816	19950327
W: AM, AU, BG, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KR, KZ, LT, LV, MD, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, UA, UZ				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 US 5486517 A 19960123 US 1994-240355 19940510  
 AU 9521978 A1 19951129 AU 1995-21978 19950327  
 ZA 9503752 A 19960111 ZA 1995-3752 19950509  
 PRIORITY APPLN. INFO.: US 1994-240355 19940510  
 WO 1995-US3816 19950327

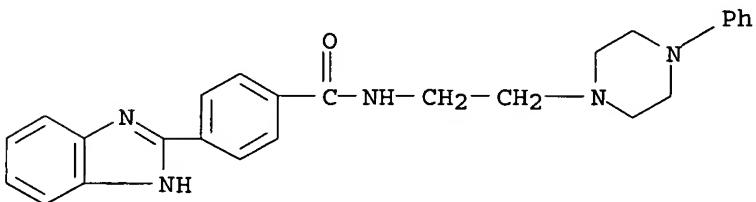
OTHER SOURCE(S): MARPAT 124:202263

IT 174266-39-8P 174266-40-1P 174266-41-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of benzimidazole and imidazopyridine derivs. as D3-selective dopaminergic antagonists)

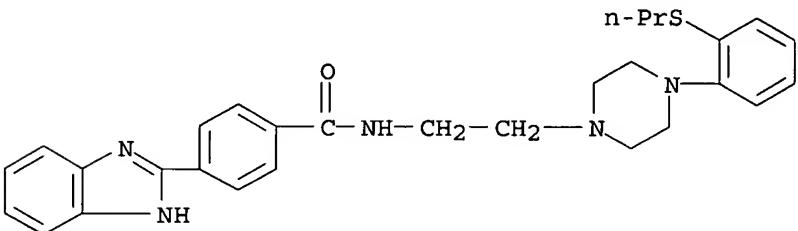
RN 174266-39-8 CAPLUS

CN Benzamide, 4-(1H-benzimidazol-2-yl)-N-[2-(4-phenyl-1-piperazinyl)ethyl]- (9CI) (CA INDEX NAME)



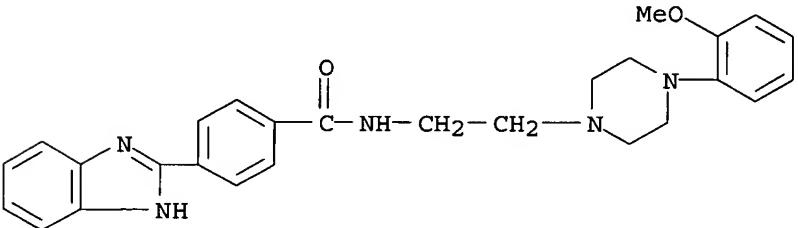
RN 174266-40-1 CAPLUS

CN Benzamide, 4-(1H-benzimidazol-2-yl)-N-[2-[4-[2-(propylthio)phenyl]-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



RN 174266-41-2 CAPLUS

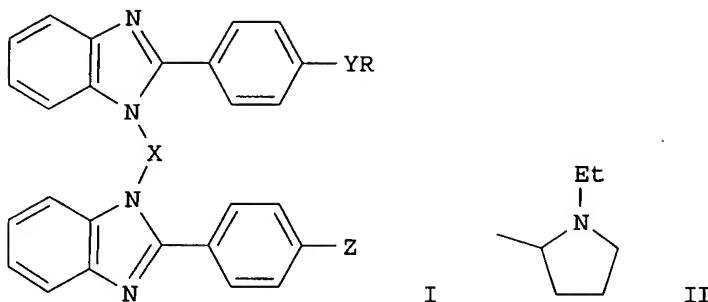
CN Benzamide, 4-(1H-benzimidazol-2-yl)-N-[2-[4-(2-methoxyphenyl)-1-piperazinyl]ethyl]- (9CI) (CA INDEX NAME)



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L4 ANSWER 26 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
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AB Dimeric benzimidazoles I [wherein R is NR<sub>1</sub>R<sub>2</sub> wherein R<sub>1</sub> and R<sub>2</sub> are each the same or different and each is alkyl of from 1 to 6 carbon atoms, alkenyl of from 2 to 6 carbon atoms, alkynyl of from 2 to 6 carbon atoms, arylalkyl wherein alkyl is from 1 to 6 carbon atoms, 2-thienylalkyl wherein alkyl is from 1 to 6 carbon atoms or R<sub>1</sub> and R<sub>2</sub> together with the nitrogen which they substitute form a 1-piperidinyl, or 1-pyrrolidinyl ring or R is II; X is alkyl of from 2 to 6 carbon atoms, alkenyl of from 2 to 6 carbon atoms, or alkynyl of from 2 to 6 carbon atoms; Y is O(CH<sub>2</sub>)<sub>n</sub> wherein n is an integer of from 2 to 6, or CONH(CH<sub>2</sub>)<sub>p</sub> wherein p is zero or an integer of from 1 to 6; and Z is hydrogen, hydroxyl, alkyl of from 1 to 6 carbon atoms, alkoxy of from 1 to 6 carbon atoms, or Y--R wherein Y and R are as defined above; and corresponding isomers thereof; or a pharmaceutically acceptable acid addn. salt thereof] are described, as well as methods for the prepn. and pharmaceutical compn. of same, which are useful as central nervous system agents and are particularly useful as antipsychotic agents and for the treatment of disorders which respond to dopaminergic blockade including psychotic depression, substance abuse, and compulsive disorders. Thus, e.g., alkenylation of 2-[4-[3-(1-pyrrolidinyl)propoxy]phenyl]-1H-benzimidazole (prepn. given) with trans-1,4-dichloro-2-butene afforded (E)-1,1'-(2-butene-1,4-diyl)bis[2-[4-[3-(1-pyrrolidinyl)propoxy]phenyl]-1H-benzimidazole] which inhibited [<sup>3</sup>H]spiperone binding to human D<sub>3</sub> receptors with IC<sub>50</sub> = 9 nM vs. 56 nM for human D<sub>2</sub> receptors.

ACCESSION NUMBER: 1995:602401 CAPLUS  
 DOCUMENT NUMBER: 123:55882  
 TITLE: Dimeric benzimidazoles as selective dopamine D<sub>3</sub> receptor antagonists  
 INVENTOR(S): Downing, Dennis M.; Wise, Lawrence D.; Wright, Jonathan L.  
 PATENT ASSIGNEE(S): Warner-Lambert Co., USA  
 SOURCE: U.S., 11 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5414010	A	19950509	US 1994-240354	19940510

WO 9530658	A1	19951116	WO 1995-US3814	19950327
W: AM, AU, BG, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KR, KZ, LT, LV, MD, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, UA, UZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9521976	A1	19951129	AU 1995-21976	19950327
ZA 9503751	A	19960111	ZA 1995-3751	19950509
PRIORITY APPLN. INFO.:			US 1994-240354	19940510
			WO 1995-US3814	19950327

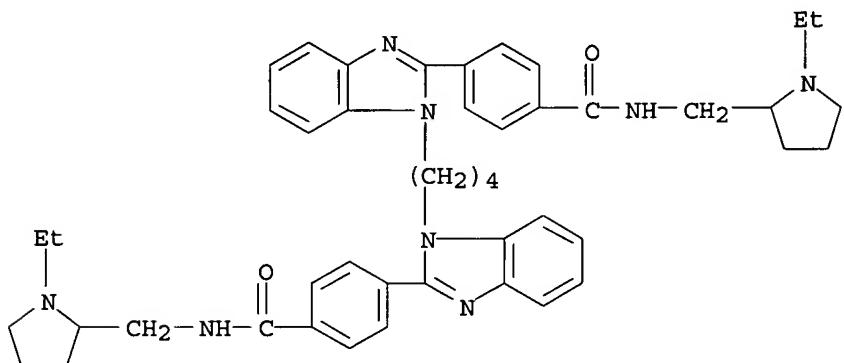
OTHER SOURCE(S): MARPAT 123:55882

IT 164917-33-3P 164917-34-4P

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
(dimeric benzimidazoles as selective dopamine D<sub>3</sub> receptor antagonists)

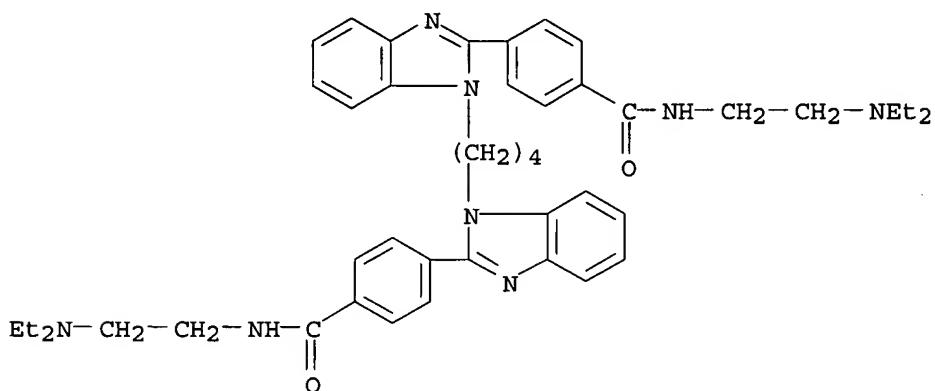
RN 164917-33-3 CAPLUS

CN Benzamide, 4,4'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl)]bis[N-[(1-ethyl-2-pyrrolidinyl)methyl]- (9CI) (CA INDEX NAME)

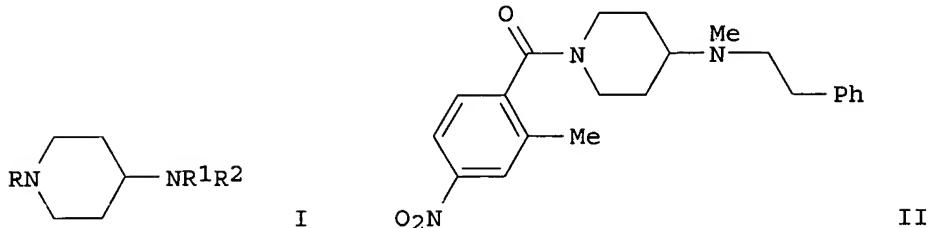


RN 164917-34-4 CAPLUS

CN Benzamide, 4,4'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl)]bis[N-[(2-diethylamino)ethyl]- (9CI) (CA INDEX NAME)



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AB Title compds. [I; R = substituted Bz, (un)substituted carbamoyl, etc.; R1 = H, (hydroxy)alkyl; R2 = (un)substituted phenyl(oxy)alkyl; NR1R2 = (un)substituted pyrrolidino, -piperidino, morpholino, -1,2,3,4-tetrahydroisoquinolino] were prep'd. Thus, title compd. II gave 24.0mL/min increase in femoral artery blood flow at 10-30. $\mu$ L of a 100nM soln. intra-arterially in dogs.

ACCESSION NUMBER: 1995:511433 CAPLUS

DOCUMENT NUMBER: 123:198624

TITLE: Preparation of N-benzoylpiperidine-4-amines as peripheral vasodilators

INVENTOR(S): Fujioka, Takafumi; Teramoto, Shuji; Tanaka, Michinori; Shimizu, Hiroshi; Tabusa, Fujio; Tominaga, Michiaki

PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 505 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9422826	A1	19941013	WO 1994-JP549	19940404
W: AU, CA, CN, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2136999	AA	19941013	CA 1994-2136999	19940404
AU 9462928	A1	19941024	AU 1994-62928	19940404
AU 674207	B2	19961212		
EP 650476	A1	19950503	EP 1994-910593	19940404
EP 650476	B1	20020626		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1104412	A	19950628	CN 1994-190181	19940404
CN 1052224	B	20000510		
AT 219766	E	20020715	AT 1994-910593	19940404
ES 2179071	T3	20030116	ES 1994-910593	19940404
JP 06340627	A2	19941213	JP 1994-95532	19940407
JP 2825755	B2	19981118		
US 5656642	A	19970812	US 1994-347454	19941206
US 5760058	A	19980602	US 1997-794322	19970203
HK 1003708	A1	20020927	HK 1998-102819	19980403
US 6136826	A	20001024	US 1998-66930	19980428
PRIORITY APPLN. INFO.:			JP 1993-80712	A 19930407
			WO 1994-JP549	W 19940404

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US 1994-347454 A3 19941206  
US 1997-794322 A3 19970203

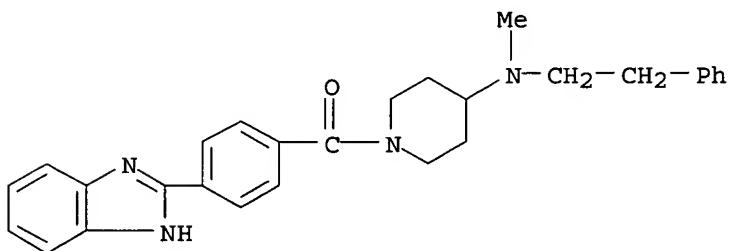
OTHER SOURCE(S) : MARPAT 123:198624

IT 167621-61-6P

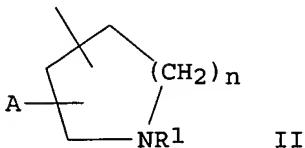
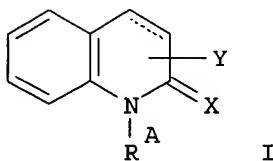
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of N-benzoylpiperidine-4-amines as peripheral vasodilators)

RN 167621-61-6 CAPLUS

CN 4-Piperidinamine, 1-[4-(1H-benzimidazol-2-yl)benzoyl]-N-methyl-N-(2-phenylethyl)- (9CI) (CA INDEX NAME)



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GI



AB A method of inhibiting oxytocin from acting at its receptor site by administering oxytocin receptor antagonist compds. of the formula I wherein X is oxygen or sulfur; Y is hydrogen or lower alkyl; RA is II. IC50 (nM) values were detd. for both [<sup>3</sup>H]oxytocin and [<sup>3</sup>H]vasopressin: 560-2500 and 39-320, resp. Pharmaceutical formulations were given.

ACCESSION NUMBER: 1995:227441 CAPLUS

DOCUMENT NUMBER: 122:105695

TITLE: Carbostyryl oxytocin receptor antagonists

INVENTOR(S): Freidinger, Roger M.; Pawluczyk, Joseph M.; Pettibone, Douglas J.; Williams, Peter D.

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: U.S., 177 pp.

CODEN: USXXAM

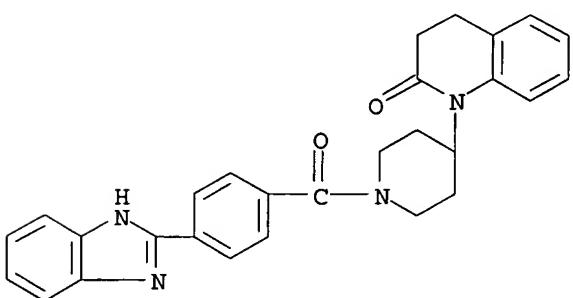
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5356904	A	19941018	US 1992-957491	19921007
WO 9519773	A1	19950727	WO 1994-US847	19940119
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.: US 1992-957491 19921007				
OTHER SOURCE(S): MARPAT 122:105695				
IT 141134-70-5P	RL: SPN (Synthetic preparation); PREP (Preparation) (carbostyryl oxytocin receptor antagonists)			
RN 141134-70-5 CAPLUS				
CN Piperidine, 1-[4-(1H-benzimidazol-2-yl)benzoyl]-4-(3,4-dihydro-2-oxo-1(2H)-quinolinyl]- (9CI) (CA INDEX NAME)				



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L4 ANSWER 29 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB 4-(1-Methylphenanthro[9,10-d]imidazol-2-yl)benzohydrazide was developed as a highly sensitive and selective fluorescence derivatization reagent for carboxylic acids in HPLC. The reaction conditions were optimized with C16-C20 linear satd. fatty acids. The derivatization reaction proceeded in aq. soln. in the presence of pyridine and 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide at mild temps. The resulting fluorescent derivs. were sepd. by reversed-phase (C18) liq. chromatog. with aq. methanol and were detected with conventional fluorescence detection at 460 nm with excitation at 325 nm. The detection limits (signal-to-noise ratio = 3) for the acids are 2-12 fmol for an injection vol. of 10 .mu.L. The fluorescent derivs. display an excitation max. at 325 nm, which coincides closely with the light emission of the helium-cadmium laser. Hence, HPLC with the reagent was combined with helium-cadmium laser-induced fluorescence detection. Using this system, attomole detection limits (70-100 amol on-column) were achieved for various carboxylic acids.

ACCESSION NUMBER: 1995:71801 CAPLUS

DOCUMENT NUMBER: 122:122239

TITLE: 4-(1-Methylphenanthro[9,10-d]imidazol-2-yl)benzohydrazide as derivatization reagent for carboxylic acids in high-performance liquid chromatography with conventional and laser-induced fluorescence detection

AUTHOR(S): Iwata, Tetsuharu; Hirose, Tsuyoshi; Nakamura, Masaru; Yamaguchi, Masatoshi

CORPORATE SOURCE: Fac. Pharmaceutical Sciences, Fukuoka Univ., Fukuoka, 814-80, Japan

SOURCE: Analyst (Cambridge, United Kingdom) (1994), 119(8), 1747-51

CODEN: ANALAO; ISSN: 0003-2654

DOCUMENT TYPE: Journal

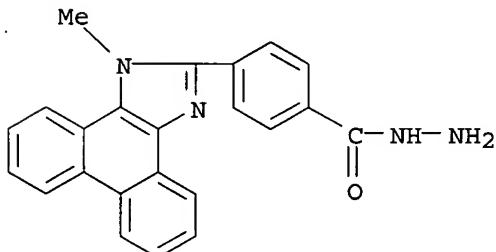
LANGUAGE: English

IT 160768-24-1P

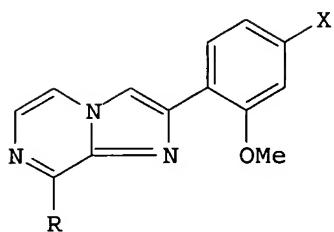
RL: ARG (Analytical reagent use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation); USES (Uses)  
 (prepn. and use of methylphenanthroimidazolylbenzohydrazide derivatization reagent for carboxylic acids in HPLC with conventional and laser-induced fluorescence detection)

RN 160768-24-1 CAPLUS

CN Benzoic acid, 4-(1-methyl-1H-phenanthro[9,10-d]imidazol-2-yl)-, hydrazide (9CI) (CA INDEX NAME)

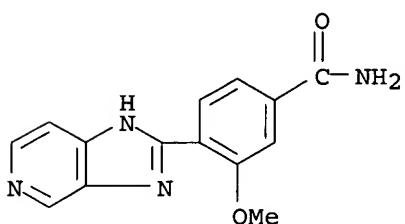


L4 ANSWER 30 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI

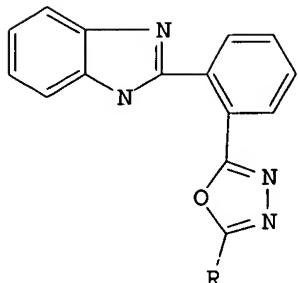


AB A series of 2-arylimidazo[1,2-a]pyrazines I (X = SOMe, CONH<sub>2</sub>, O<sub>3</sub>SMe; R = H, OMe) has been prep'd. and evaluated for inotropic activity. I (X = SOMe, R = OMe) (BW315C) displayed potent inotropic effects having comparable in vitro and and in vivo inotropic potencies to those of isomazole. Structure-activity relationships are discussed.

ACCESSION NUMBER: 1994:409327 CAPLUS  
 DOCUMENT NUMBER: 121:9327  
 TITLE: Synthesis and pharmacological properties of BW315C and other inotropic 2-arylimidazo[1,2-a]pyrazines  
 AUTHOR(S): Barracough, Paul; Black, James W.; Cambridge, David; Gerskowitch, V. Paul; Giles, Heather; Glen, Robert C.; Hull, Robert A. D.; Iyer, Ramachandran; King, W. Richard; et al.  
 CORPORATE SOURCE: Dep. Med. Chem., Wellcome Res. Lab., Beckenham/Kent, BR3 3BS, UK  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1993), 3(4), 509-14  
 CODEN: BMCLE8; ISSN: 0960-894X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 121:9327  
 IT 130179-73-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (inotropic activity of)  
 RN 130179-73-6 CAPLUS  
 CN Benzamide, 4-(1H-imidazo[4,5-c]pyridin-2-yl)-3-methoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 31 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB Title compds. I [R = (un)substituted Ph, etc.] were prep'd. by hydrazinolysis of o-benzoyl-2,1-benzimidazole followed by cyclization with RCO<sub>2</sub>H. The bactericidal activity of I was screened.

ACCESSION NUMBER: 1993:449309 CAPLUS

DOCUMENT NUMBER: 119:49309

TITLE: 1,3,4-Oxadiazoles. Part XIV: 2-Aryl-5-(o-benzimidazol-2'-yl-phenyl)-1,3,4-oxadiazoles

AUTHOR(S): Bapodra, Atul; Joshi, Nailesh; Pandya, Ajay; Parekh, Hansa

CORPORATE SOURCE: Chem. Dep., Saurashtra Univ., Rajkot, 360 005, India

SOURCE: Journal of the Institution of Chemists (India) (1992), 64(2), 65-6

CODEN: JOICA7; ISSN: 0020-3254

DOCUMENT TYPE: Journal

LANGUAGE: English

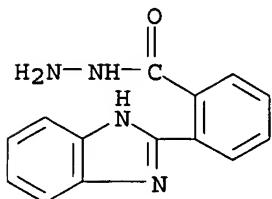
OTHER SOURCE(S): CASREACT 119:49309

IT 148438-23-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and cyclization of, with carboxylic acids)

RN 148438-23-7 CAPLUS

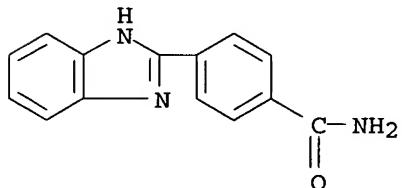
CN Benzoic acid, 2-(1H-benzimidazol-2-yl)-, hydrazide (9CI) (CA INDEX NAME)



L4 ANSWER 32 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB The title compds. are prep'd. by treating arom. diamines having 2 amino groups at adjacent carbons with nitrile compds. in the presence of Ru complexes. Treating o-phenylenediamine with PhCN in AcNMe<sub>2</sub> in the presence of RuCl<sub>2</sub>(PPh<sub>3</sub>)<sub>3</sub> at 160.degree. for 24 h gave 81% 2-phenylbenzimidazole.

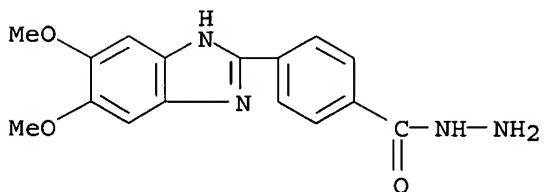
ACCESSION NUMBER: 1993:80794 CAPLUS  
 DOCUMENT NUMBER: 118:80794  
 TITLE: Preparation of condensed aromatic imidazoles  
 INVENTOR(S): Yamashita, Mitsuhiro; Imai, Yoshio; Kakimoto, Masaaki  
 PATENT ASSIGNEE(S): Tokuyama Soda Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04279571	A2	19921005	JP 1991-103272	19910305
PRIORITY APPLN. INFO.:			JP 1991-103272	19910305
OTHER SOURCE(S):		CASREACT 118:80794		
IT 145855-32-9P	RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)			
RN 145855-32-9	CAPLUS			
CN Benzamide, 4-(1H-benzimidazol-2-yl)-	(9CI) (CA INDEX NAME)			

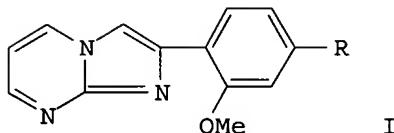


L4 ANSWER 33 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB The title reagent was prep'd. and characterized by structural anal. for use as a derivatization reagent for detn. of carboxylic acids by high-performance liq. chromatog. using fluorometric detection. The reagent is useful for the highly sensitive (femtomole levels) HPLC detn. of linear satd. fatty acids.

ACCESSION NUMBER: 1993:72807 CAPLUS  
 DOCUMENT NUMBER: 118:72807  
 TITLE: 4-(5,6-Dimethoxy-2-benzimidazoyl)benzohydrazide as fluorescence derivatization reagent for carboxylic acids in high-performance liquid chromatography  
 AUTHOR(S): Iwata, Tetsuharu; Nakamura, Masaru; Yamaguchi, Masatoshi  
 CORPORATE SOURCE: Fac. Pharm. Sci., Fukuoka Univ., Fukuoka, 814-01, Japan  
 SOURCE: Analytical Sciences (1992), 8(6), 889-92  
 CODEN: ANSCEN; ISSN: 0910-6340  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 145697-65-0P, 4-(5,6-Dimethoxy-2-benzimidazoyl)benzohydrazide  
 RL: SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)  
 (prepn. and use of, as derivatization reagent for detn. of carboxylic acids by high-performance liq. chromatog. using fluorometric detection)  
 RN 145697-65-0 CAPLUS  
 CN Benzoic acid, 4-(5,6-dimethoxy-1H-benzimidazol-2-yl)-, hydrazide (9CI)  
 (CA INDEX NAME)

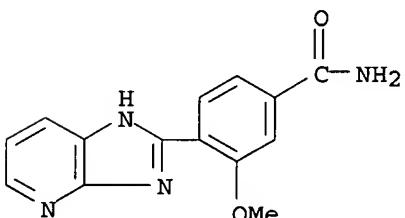


L4 ANSWER 34 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB A series of 2-arylimidazo[1,2-a]pyrimidines were prepd. and evaluated for inotropic activity. Thus, 2-aminopyrimidine was treated with 2,4-(MeO)2C6H3COCH2Br to give 52% I (R = MeO). Three of these heterocycles I (R = MeO, MeS, MeSO3) displayed more potent inotropic effects in vitro than isomazole. The in vivo inotropic potencies of I (R = MeSO3, NH2CO) were similar to those of isomazole and sulmazole resp. The effects of some 'A' and 'C' ring substituents on the inotropic activities of the imidazo[1,2-a]pyrimidines were different from those on the imidazopyridines. Nevertheless the inotropic potencies of several 1H-imidazo[4,5-b]pyridine isomers than to those of the corresponding isomazole analogs. Structure-activity relationships are discussed in detail.

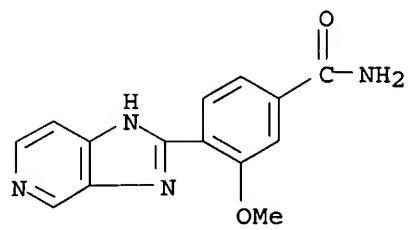
ACCESSION NUMBER: 1992:571309 CAPLUS  
DOCUMENT NUMBER: 117:171309  
TITLE: Inotropic 2-arylimidazo[1,2-a]pyrimidines  
AUTHOR(S): Barraclough, P.; Black, J. W.; Cambridge, D.; Capon, E.; Cox, M. R.; Firmin, D.; Gerskowitch, V. P.; Giles, H.; Glen, R. C.; et al.  
CORPORATE SOURCE: Dep. Med. Chem., Wellcome Res. Lab., Beckenham/Kent, BR3 3BS, UK  
SOURCE: European Journal of Medicinal Chemistry (1992), 27(3), 207-17  
DOCUMENT TYPE: CODEN: EJMCA5; ISSN: 0223-5234  
LANGUAGE: English  
IT 89469-25-0 130179-73-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(inotropic activity of)  
RN 89469-25-0 CAPLUS  
CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy- (9CI) (CA INDEX NAME)



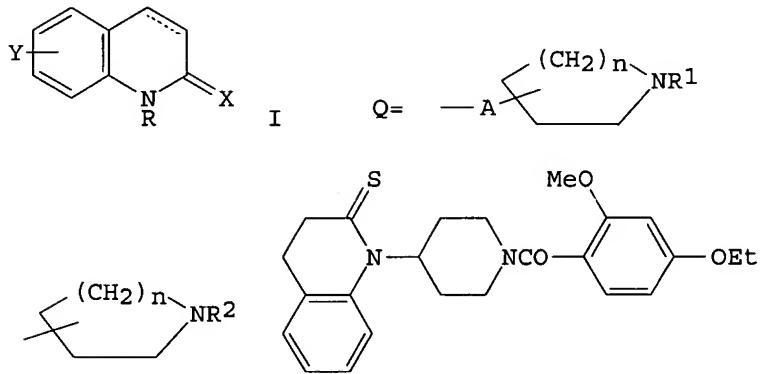
RN 130179-73-6 CAPLUS  
CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy- (9CI) (CA INDEX NAME)

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L4 ANSWER 35 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
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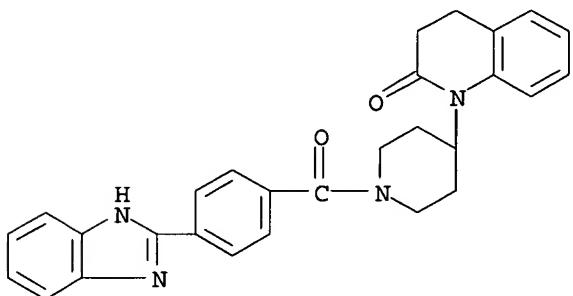


AB Title compds. I [X = O,S; Y = H, C1-6 alkyl; R = Q, Q1; A = C1-6 alkenyl; R1 = (substituted) benzoyl; n = 1,2; R2 = substituted benzoyl; dotted line is optional double bond; with provisos] were prep'd. as vasopressin antagonists. Thus, 1-(4-piperidinyl)-3,4-dihydrocarbostyryl hydrochloride and Lawesson's Reagent were refluxed for 40 h in toluene to give 1-(4-piperidinyl)-3,4-dihydrothiocarbostyryl. This was condensed with 4-ethoxy-2-methoxybenzoic acid in the presence of bis(2-oxooxazolidin-3-yl)phosphinyl chloride and Et<sub>3</sub>N to give title compd. II. II had IC<sub>50</sub> of 0.73 .μ.M against [<sup>3</sup>H]-vasopressin binding to rat liver plasma membrane. Formulations contg. I were prep'd.

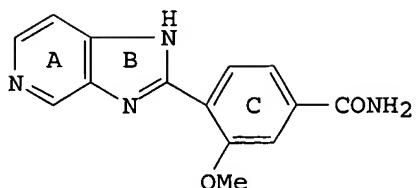
ACCESSION NUMBER: 1992:214371 CAPLUS  
 DOCUMENT NUMBER: 116:214371  
 TITLE: Preparation of carbostyryl derivatives as vasopressin antagonists  
 INVENTOR(S): Ogawa, Hidenori; Miyamoto, Hisashi; Kondo, Kazumi; Yamashita, Hiroshi; Nakaya, Kenji; Komatsu, Hajime; Tanaka, Michinori; Kitano, Kazuyoshi; Fujioka, Takafumi; et al.  
 PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 60 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 470514	A1	19920212	EP 1991-112999	19910802
EP 470514	B1	19970219		
R: CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
ES 2100187	T3	19970616	ES 1991-112999	19910802
AU 9181574	A1	19920305	AU 1991-81574	19910805
AU 638346	B2	19930624		
US 5300513	A	19940405	US 1991-740676	19910806
CN 1058779	A	19920219	CN 1991-105415	19910807
CN 1036651	B	19971210		
JP 05004984	A2	19930114	JP 1991-197607	19910807

JP 3165867 B2 20010514  
PRIORITY APPLN. INFO.: JP 1990-210025 A 19900807  
OTHER SOURCE(S): MARPAT 116:214371  
IT 141134-70-5P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of, as vasopressin antagonist)  
RN 141134-70-5 CAPLUS  
CN Piperidine, 1-[4-(1H-benzimidazol-2-yl)benzoyl]-4-(3,4-dihydro-2-oxo-1(2H)-quinolinyl)- (9CI) (CA INDEX NAME)



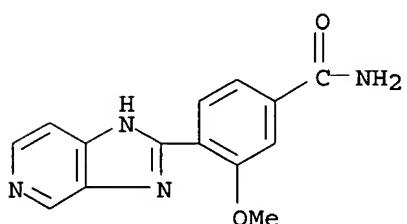
L4 ANSWER 36 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



I

AB Isomazole analogs, e.g., I, which have achiral electron withdrawing substituents at the 4'-position and analogs with heterocyclic 'C' rings were prep'd. and evaluated as inotropic agents. Pyridyl could replace Ph in the 'C' ring without loss of activity. The 4'-methylsulfonyl, -cyano, -carboxamido, and acetyl analogs had similar inotropic potencies to Isomazole while displaying superior cardiovascular profiles in vivo studies.

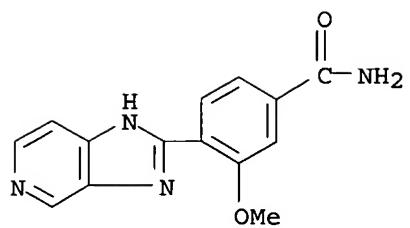
ACCESSION NUMBER: 1990:591241 CAPLUS  
DOCUMENT NUMBER: 113:191241  
TITLE: Cardiotonic C ring modified isomazole analogs  
AUTHOR(S): Barraclough, Paul; Black, James W.; Cambridge, David;  
Demaine, Derek A.; Gerskowitch, V. Paul; Giles,  
Heather; Hill, Alan P.; Hull, Robert A. D.; Lyer,  
Ramachandran; et al.  
CORPORATE SOURCE: Dep. Med. Chem., Wellcome Res. Lab., Beckenham/Kent,  
BR3 3BS, UK  
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1990),  
323(8), 507-12  
CODEN: ARPMAS; ISSN: 0365-6233  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 130179-73-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(inotropic activity of)  
RN 130179-73-6 CAPLUS  
CN Benzamide, 4-(1H-imidazo[4,5-c]pyridin-2-yl)-3-methoxy- (9CI) (CA INDEX NAME)



IT 130179-79-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prep'n. of)  
RN 130179-79-2 CAPLUS  
CN Benzamide, 4-(1H-imidazo[4,5-c]pyridin-2-yl)-3-methoxy-, dihydrochloride (9CI) (CA INDEX NAME)

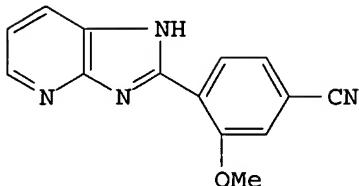
07/31/2003

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●2 HCl

L4 ANSWER 37 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



I

AB A series of 2-substituted 1H-imidazo[4,5-b]pyridines, e.g., I, and the isomeric 1H-imidazo[4,5-c]pyridine derivs. was prep'd. by, e.g., condensing 2,3-diaminopyridine with 2,4-(MeO)(NC)C<sub>6</sub>H<sub>3</sub>COCl, and evaluated as inotropic agents. The 1H-imidazo-[4,5-b] derivs. were consistently more potent than their isomers in the [4,5-c] series in isolated guinea pig papillary muscle preps. Structure-activity relationships and the species-dependence of inotropic potencies are discussed.

ACCESSION NUMBER: 1990:591240 CAPLUS

DOCUMENT NUMBER: 113:191240

TITLE: Inotropic activities of imidazopyridines

AUTHOR(S): Barraclough, Paul; Black, James W.; Cambridge, David; Gerskowitch, V. Paul; Hull, Robert A. D.; Lyer, Ramachandran; King, W. Richard; Kneen, Clare O.; Nobbs, Malcolm S.; et al.

CORPORATE SOURCE: Dep. Med. Chem., Wellcome Res. Lab., Beckenham/Kent, BR3 3BS, UK

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1990), 323(8), 501-5

CODEN: ARPMAS; ISSN: 0365-6233

DOCUMENT TYPE: Journal

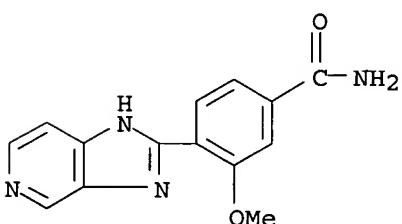
LANGUAGE: English

IT 130179-73-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(inotropic activity of)

RN 130179-73-6 CAPLUS

CN Benzamide, 4-(1H-imidazo[4,5-c]pyridin-2-yl)-3-methoxy- (9CI) (CA INDEX NAME)



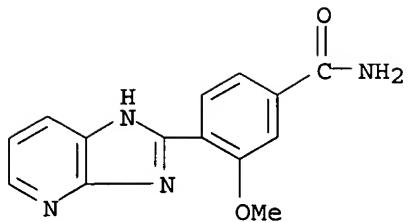
IT 89469-25-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prepn. and inotropic activity of)

RN 89469-25-0 CAPLUS

CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy- (9CI) (CA INDEX

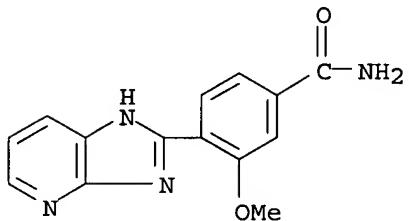
NAME)



IT 89454-64-8P

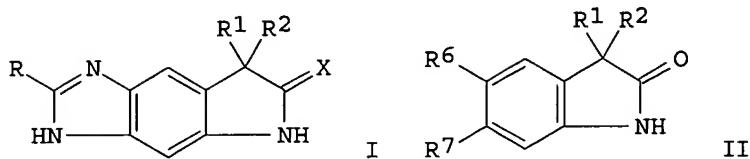
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 89454-64-8 CAPLUS

CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy-, monohydrochloride  
(9CI) (CA INDEX NAME)

● HCl

L4 ANSWER 38 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
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AB The title compds. [I; R = QZ; Q = R3-R5-substituted phenyl; R1 = H, alkyl, alkenyl, cycloalkyl; R2 = H, cyano, alkyl, alkenyl, (un)substituted CO<sub>2</sub>H; R1R2 = alkylidene, cycloalkylidene; R3-R5 = H, OH, alkoxy, alkylthio, halo, NO<sub>2</sub>, cyano, etc.; X = O, S; Z = bond, alkylene, vinylene] were prep'd., e.g., by condensation of indolinone II (R<sub>6</sub> = R<sub>7</sub> = NH<sub>2</sub>) with QZCOCl. II (R<sub>1</sub> = R<sub>2</sub> = Me, R<sub>6</sub> = NO<sub>2</sub>, R<sub>7</sub> = NH<sub>2</sub>) was stirred with BzCl and the product hydrogenated over Pd/C to give 81% I (R = Ph, R<sub>1</sub> = R<sub>2</sub> = Me, X = O). Similarly prep'd. I [R = 2,4-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, R<sub>1</sub> = R<sub>2</sub> = Me, X = O] gave an increase of rat heart contractility of 4.2 mmHg/s at 10 mg/kg i.v.

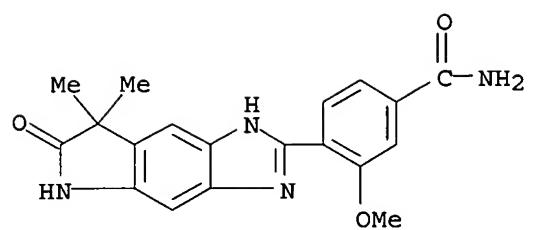
ACCESSION NUMBER: 1989:515180 CAPLUS  
 DOCUMENT NUMBER: 111:115180  
 TITLE: Preparation of 6,7-dihydro-3H,5H-pyrrolo[2,3-f]benzimidazol-6-ones as cardiovascular agents  
 INVENTOR(S): Mertens, Alfred; Hoelck, Jens Peter; Kampe, Wolfgang;  
 Mueller-Beckmann, Bernd; Strein, Klaus; Schaumann, Wolfgang  
 PATENT ASSIGNEE(S): Boehringer Mannheim G.m.b.H., Fed. Rep. Ger.  
 SOURCE: U.S., 14 pp. Cont.-in-part of U.S. Ser. No. 807,260.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4810801	A	19890307	US 1987-103895	19871001
DE 3445669	A1	19860619	DE 1984-3445669	19841214
US 4710510	A	19871201	US 1985-807260	19851210
PRIORITY APPLN. INFO.:			DE 1984-3445669	19841214
			US 1985-807260	19851210

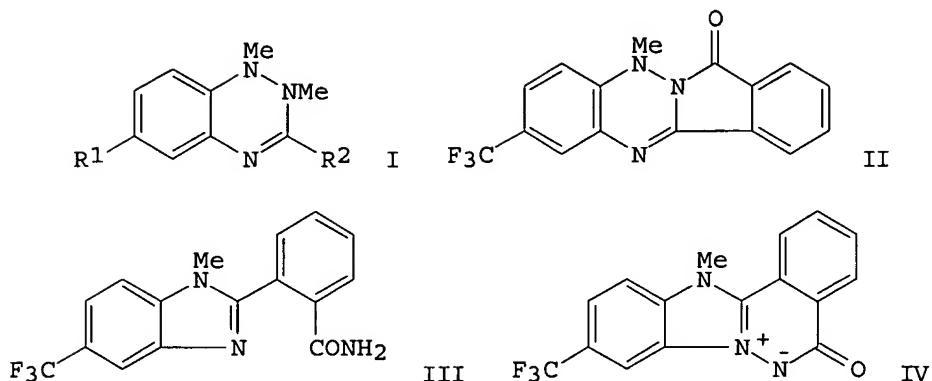
OTHER SOURCE(S): CASREACT 111:115180; MARPAT 111:115180  
 IT 122455-08-7P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as cardiovascular agent)  
 RN 122455-08-7 CAPLUS  
 CN Benzamide, 3-methoxy-4-(1,5,6,7-tetrahydro-7,7-dimethyl-6-oxopyrrolo[2,3-f]benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

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L4 ANSWER 39 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI

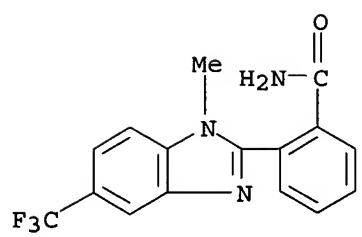


**AB** The 1,2-dimethyl-1,2,4-benzotriazines I ( $R_1 = H$ ,  $R_2 = Ph$ ;  $R_1 = CF_3$ ,  $R_2 = Me$ ,  $Ph$ ) were prep'd. by acid-catalyzed cyclization of the 2-aminophenylhydrazine derivs. Compsd. I ( $R_1 = H$ ,  $CF_3$   $R_2 = Ph$ ) undergo a thermal elimination to fully arom. benzotriazines. However, the 2-acyl deriv. II rearranges to the thermodynamically more stable 4-acyl compd. In the presence of traces of water, a ring contraction to benzimidazoles is a competing reaction. For II the nitrogen fragment is retained in the benzamide III. A mechanism for the ring contraction was suggested in which initial hydration of the imine bond gives 1,2,3,4-tetrahydrobenzotriazines which then recyclize to benzimidazoles. The benzimidazo[2,1-a]phthalazine IV was shown not to be an intermediate in the water-mediated ring contraction of II.

ACCESSION NUMBER: 1989:407347 CAPLUS  
 DOCUMENT NUMBER: 111:7347  
 TITLE: Synthesis and thermal reactions of 1,2-dihydro-1,2,4-benzotriazines  
 AUTHOR(S): King, Frank D.  
 CORPORATE SOURCE: Res. Div., Beecham Pharm., Harlow/Essex, UK  
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999)  
 (1988), (12), 3381-5  
 CODEN: JCPRB4; ISSN: 0300-922X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 111:7347  
**IT 120914-45-6P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prep. of)  
**RN 120914-45-6 CAPLUS**  
**CN Benzamide, 2-[1-methyl-5-(trifluoromethyl)-1H-benzimidazol-2-yl]- (9CI)**  
 (CA INDEX NAME)

07/31/2003

10019105.trn



L4 ANSWER 40 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB The title sheets are prep'd. by wet spinning together polymers with high rigidity and heat-bondable polymers to form fibrids and then hot pressing the fibrids. Thus, a mixt. of 20.0 parts poly(p-phenylenebenzobisthiazole) and 20.0 parts poly(m-phenyleneisophthalamide-terephthalamide) in 2600 parts methanesulfonic acid was spun into a coagulating bath, shredded in a mixer, and washed to give fibrids. A slurry contg. these fibrids was fed to a papermaking machine and pressed 15 h at 310.degree. to give a heat-resistant paper substitute with ratio of tensile strength in MPa to modulus in GPa 19:15.

ACCESSION NUMBER: 1987:198029 CAPLUS

DOCUMENT NUMBER: 106:198029

TITLE: Synthetic fibrids for heat-resistant high-modulus sheets

INVENTOR(S): Mera, Hiroshi; Nishihara, Toshio; Endo, Zenichiro

PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62006958	A2	19870113	JP 1985-144577	19850703
US 4749753	A	19880607	US 1986-880828	19860701
PRIORITY APPLN. INFO.:			JP 1985-144576	19850703
			JP 1985-144577	19850703
			JP 1985-144578	19850703
			JP 1985-163057	19850725

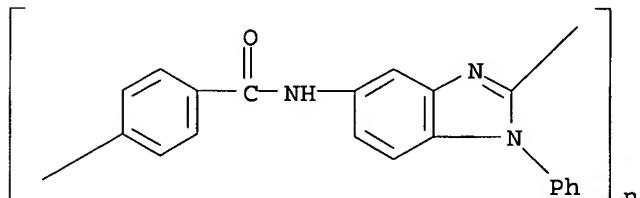
IT 26615-36-1

RL: USES (Uses)

(fiber, biconstituent with polyazole fibers, fibrids, for heat-resistant paper substitutes)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 41 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB The title fibrids for manuf. of heat-resistant tough paper substitutes are prepd. by spinning or extruding liqs. contg. polymers with high rigidity and heat-bondable matrix polymers into a coagulating bath, drawing the fibers or films, and then pulverizing them. Thus, a mixt. of 20.0 parts poly(p-phenylenebenzothiazole) and 20.0 parts poly(m-phenyleneisophthalamide-terephthalamide) in 2600 parts methanesulfonic acid was spun into a coagulating bath, drawn 30% in H<sub>2</sub>O, washed, dried, drawn 10% at 450.degree., and fibrillated in a beater to give fibrids. A slurry contg. these fibrids was fed to a papermaking machine and pressed 15 h at 310.degree. to give a heat-resistant paper substitute with high bending strength.

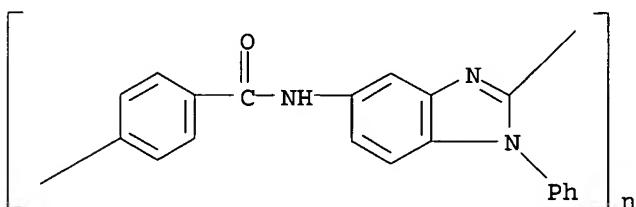
ACCESSION NUMBER: 1987:198028 CAPLUS  
 DOCUMENT NUMBER: 106:198028  
 TITLE: Manufacture of heat-bondable synthetic fibrids  
 INVENTOR(S): Mera, Hiroshi; Nishihara, Toshio; Endo, Zenichiro  
 PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62006916	A2	19870113	JP 1985-144578	19850703
US 4749753	A	19880607	US 1986-880828	19860701
PRIORITY APPLN. INFO.:			JP 1985-144576	19850703
			JP 1985-144577	19850703
			JP 1985-144578	19850703
			JP 1985-163057	19850725

IT 26615-36-1  
 RL: USES (Uses)  
 (fiber, biconstituent with polyazole fibers, fibrids for paper substitutes)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 42 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB The title fibrids for heat-resistant paper substitutes are prep'd. by wet spinning together polymers with high rigidity and heat-bondable polymers and then fibrillating the fibers by shearing. Thus, a mixt. of 20.0 g poly(p-phenylenebenzobisthiazole) and 20.0 g poly(m-phenyleneisophthalamide-terephthalamide) in 2.6 kg methanesulfonic acid was spun into a coagulating bath, sheared in a mixer, and washed to give fibrids. A slurry contg. these fibrids was fed to a papermaking machine and pressed 15 h at 310.degree. to give a heat-resistant paper substitute with ratio of tensile strength in MPa to modulus in GPa 35:15.

ACCESSION NUMBER: 1987:198027 CAPLUS

DOCUMENT NUMBER: 106:198027

TITLE: Heat-resistant heat-bondable synthetic fibrid manufacture

INVENTOR(S): Mera, Hiroshi; Nishihara, Toshio; Endo, Zenichiro

PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62006915	A2	19870113	JP 1985-144576	19850703
US 4749753	A	19880607	US 1986-880828	19860701
PRIORITY APPLN. INFO.:			JP 1985-144576	19850703
			JP 1985-144577	19850703
			JP 1985-144578	19850703
			JP 1985-163057	19850725

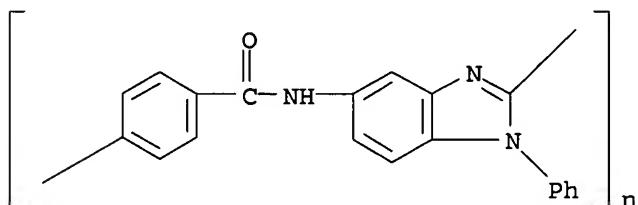
IT 26615-36-1

RL: USES (Uses)

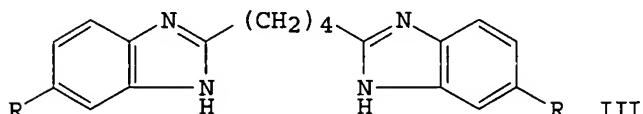
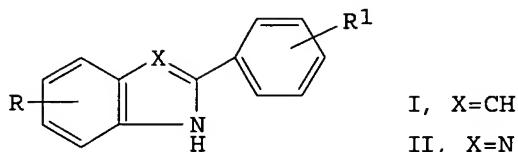
(fiber, biconstituent with synthetic fibers, fibrids, heat-resistant)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene]  
 (9CI) (CA INDEX NAME)



L4 ANSWER 43 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB Indole and benzimidazoleamidine derivs., including I (R = C(:NH)NH<sub>2</sub>, H; R<sup>1</sup> = C(:NH)NH<sub>2</sub>, H, or NO<sub>2</sub>), II (R = C(:NH)NH<sub>2</sub>, CN, or C(:NH)OEt; R<sup>1</sup> = C(:NH)NH<sub>2</sub>, H, CN, or C(:NH)NH<sub>2</sub>), and III (R = C(:NH)NH<sub>2</sub>, CN, or C(:NH)OEt) were synthesized by previously reported methods. On screening for antimalarial activity in mice infected with Plasmodium berghei, I; (R = 5-C(:NH)NH<sub>2</sub>; R<sup>1</sup> = 4'-C(:NH)NH<sub>2</sub>) [66639-01-8] and II; (R = 5(6)-C(:NH)NH<sub>2</sub>; R<sup>1</sup> = 4-C(:NH)NH<sub>2</sub>) [66639-16-5] had better antimalarial activity than the other synthesized compds. tested; however, the antimalarial effect of these 2 compds. was lower than the previously tested antimalarial agent, 4',6-diamidinyl-2-phenylimidazole.

ACCESSION NUMBER: 1986:101983 CAPLUS

DOCUMENT NUMBER: 104:101983

TITLE: Synthesis and antimalarial activity of some indole and benzimidazole amidine derivatives

AUTHOR(S): Zhang, Xiuping; Chen, Gendi; Xie, Xiaoyun

CORPORATE SOURCE: Shanghai Inst. Pharm. Ind., Shanghai, Peop. Rep. China

SOURCE: Yiyao Gongye (1985), 16(9), 394-9

CODEN: YIGODN; ISSN: 0255-7223

DOCUMENT TYPE: Journal

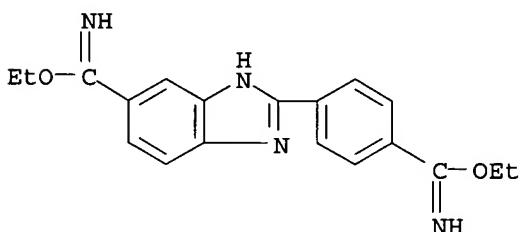
LANGUAGE: Chinese

IT 100562-31-0P 100562-55-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prep. of)

RN 100562-31-0 CAPLUS

CN 1H-Benzimidazole-5-carboximidic acid, 2-[4-(ethoxyiminomethyl)phenyl]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)



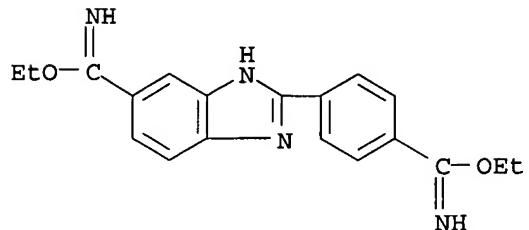
2 HCl

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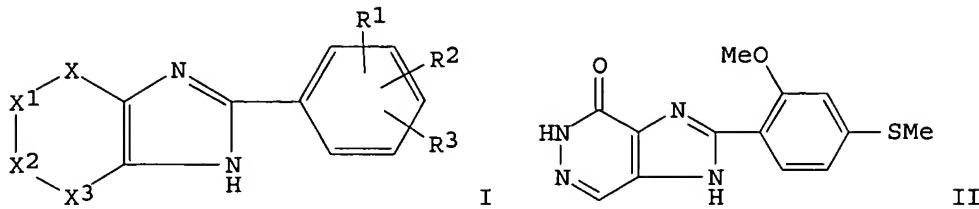
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RN 100562-55-8 CAPLUS

CN 1H-Benzimidazole-5-carboximidic acid, 2-[4-(ethoxyiminomethyl)phenyl]-, ethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 44 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB Fused-ring imidazoles I [1-3 of X-X3 = R4N, the remainder = CO, R5C; R4 = H, alkyl; R5 = alkoxy, PhCH<sub>2</sub>O, HO, halo; R1 = alkyl, alkoxy, PhCH<sub>2</sub>O, R<sub>6</sub>S(O)<sub>n</sub>, halo, amino, NO<sub>2</sub>, CO<sub>2</sub>H, alkanamido, acyl (e.g., cyano, carbamoyl, sulfamoyl, alkoxy carbonyl); R2, R3 = H, alkyl, alkoxy, OH, R<sub>6</sub>S(O)<sub>n</sub>, amino, halo, NO<sub>2</sub>, alkanamido, acyl; R6 = alkyl; n = 0-2] were prepd. Thus, 2,4-(MeO)(MeS)C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>H and 4,5-diamino-3(2H)-pyridazinone were heated 90 min at 100-110.degree. in polyphosphoric acid to give 12% imidazopyridazinone II. In cats 2.0 mg II/kg gave a 72% increase in the heart contractility parameter and increased arterial blood pressure 10%.

ACCESSION NUMBER: 1986:5871 CAPLUS

DOCUMENT NUMBER: 104:5871

TITLE: 2-Phenylimidazoles and a drug containing these compounds

INVENTOR(S): Austel, Volkhard; Heider, Joachim; Hauel, Norbert; Reiffen, Manfred; Nickl, Josef; Van Meel, Jakobus C. A.; Diederer, Willi

PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Fed. Rep. Ger.

SOURCE: Ger. Offen., 66 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3347290	A1	19850711	DE 1983-3347290	19831228
ES 537992	A1	19851101	ES 1984-537992	19841127
DK 8406102	A	19850629	DK 1984-6102	19841219
EP 149200	A1	19850724	EP 1984-116009	19841220
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4722929	A	19880202	US 1984-684052	19841220
JP 60172980	A2	19850906	JP 1984-281991	19841225
FI 8405117	A	19850629	FI 1984-5117	19841227
NO 8405252	A	19850701	NO 1984-5252	19841227
DD 231355	A5	19851224	DD 1984-271864	19841227
HU 37618	A2	19860123	HU 1984-4843	19841227
ZA 8410057	A	19860924	ZA 1984-10057	19841227
AU 8437211	A1	19850704	AU 1984-37211	19841228
ES 543082	A1	19860101	ES 1985-543082	19850513
ES 543083	A1	19860101	ES 1985-543083	19850513
ES 543084	A1	19860101	ES 1985-543084	19850513
ES 543085	A1	19860101	ES 1985-543085	19850513
ES 543086	A1	19860101	ES 1985-543086	19850513
PRIORITY APPLN. INFO.:		DE 1983-3347290		19831228

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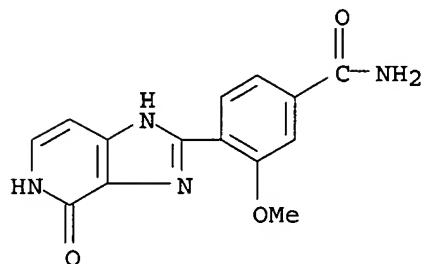
OTHER SOURCE(S) : CASREACT 104:5871

IT 99445-95-1P

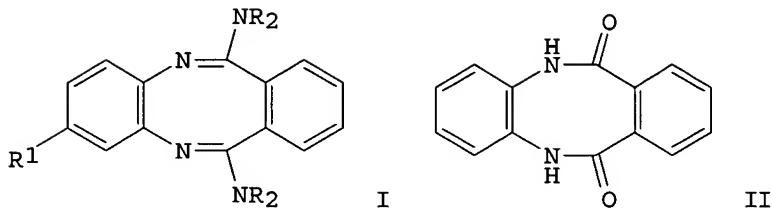
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, as antihypotensive and inotropic agent)

RN 99445-95-1 CPLUS

CN Benzamide, 4-(4,5-dihydro-4-oxo-1H-imidazo[4,5-c]pyridin-2-yl)-3-methoxy-  
(9CI) (CA INDEX NAME)



L4 ANSWER 45 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB Dibenzodiazocines I (NR<sub>2</sub> = 4-methyl-1-piperazinyl, 4-morpholinyl, 4-carbethoxy-1-piperazinyl; R<sub>1</sub> = H, Me) were prepd. Dibenzodiazocinedione II was heated with 1-methylpiperazine, TiCl<sub>4</sub>, and PhOMe to give I (NR<sub>2</sub> = 4-methyl-1-piperazinyl, R<sub>1</sub> = H).

ACCESSION NUMBER: 1985:560482 CAPLUS

DOCUMENT NUMBER: 103:160482

TITLE: Titanium tetrachloride-induced functionalization of dibenzo[b,f][1,4]diazocene-6,11-(5H,12H)-diones

AUTHOR(S): Venugopalan, Bindumadhavan; Iyer, Sivasailam Suresh; De Souza, Noel John

CORPORATE SOURCE: Res. Cent., Hoechst India Ltd., Bombay, 400 080, India

SOURCE: Heterocycles (1985), 23(6), 1425-30

CODEN: HTCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

LANGUAGE: English

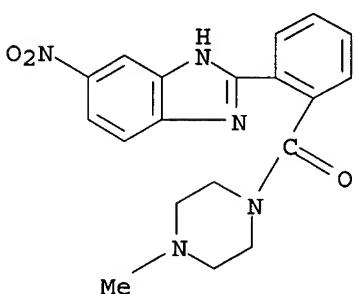
OTHER SOURCE(S): CASREACT 103:160482

IT 98096-47-0P 98096-81-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prep. of)

RN 98096-47-0 CAPLUS

CN Piperazine, 1-methyl-4-[2-(5-nitro-1H-benzimidazol-2-yl)benzoyl]- (9CI)  
(CA INDEX NAME)

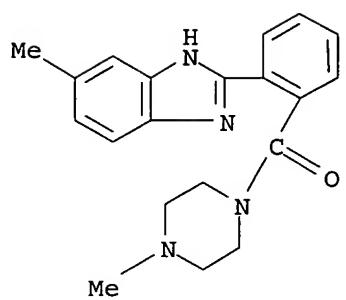


RN 98096-81-2 CAPLUS

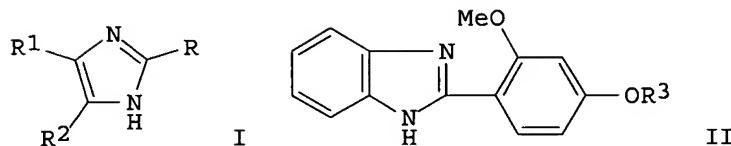
CN Piperazine, 1-methyl-4-[2-(5-methyl-1H-benzimidazol-2-yl)benzoyl]- (9CI)  
(CA INDEX NAME)

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L4 ANSWER 46 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB Antihypertensive and inotropic fused-ring imidazoles I ( $R = \text{substituted Ph}$ ;  $R_1R_2 = \text{CH:CHCH:N, CH:NCH:N, substituted CH:CHCH:CH}$ ) were prep'd. Thus, 2,4-(MeO)(PhCH<sub>2</sub>O)C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>H was cyclocondensed with C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub>-1,2 to give 53% II ( $R_3 = \text{PhCH}_2$ ). This was hydrogenolized over Pd/C to give 95.8% II ( $R_3 = \text{H}$ ), which was esterified with MeSO<sub>2</sub>Cl to give 41.9% II ( $R_3 = \text{MeSO}_2$ ) (III). In cats 2 mg III/kg had a contractility parameter  $dp/dt_{\max}$  of 94 and reduced blood pressure 24 mm.

ACCESSION NUMBER: 1984:139110 CAPLUS

DOCUMENT NUMBER: 100:139110

TITLE: Imidazole derivatives and a pharmaceutical containing these compounds

INVENTOR(S): Hauel, Norbert; Austel, Volkhard; Heider, Joachim; Reiffen, Manfred; Diederer, Willi

PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Fed. Rep. Ger.

SOURCE: Ger. Offen., 63 pp.  
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3224512	A1	19840105	DE 1982-3224512	19820701
FI 8302022	A	19840102	FI 1983-2022	19830606
EP 98448	A2	19840118	EP 1983-106026	19830621
EP 98448	A3	19850403		
R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE				
US 4582837	A	19860415	US 1983-506454	19830621
SU 1316559	A3	19870607	SU 1983-3606327	19830621
CS 254319	B2	19880115	CS 1983-4724	19830627
NO 8302356	A	19840102	NO 1983-2356	19830629
DD 210271	A5	19840606	DD 1983-252527	19830629
DK 8303013	A	19840102	DK 1983-3013	19830630
AU 8316428	A1	19840105	AU 1983-16428	19830630
GB 2122995	A1	19840125	GB 1983-17732	19830630
GB 2122995	B2	19860212		
JP 59027875	A2	19840214	JP 1983-119476	19830630
HU 31210	O	19840428	HU 1983-2382	19830630
HU 192152	B	19870528		
ES 523709	A1	19841001	ES 1983-523709	19830630
ZA 8304777	A	19850327	ZA 1983-4777	19830630
PL 142880	B1	19871231	PL 1983-242770	19830630
PL 144589	B1	19880630	PL 1983-260157	19830630
ES 529174	A1	19841001	ES 1984-529174	19840126
ES 529175	A1	19841001	ES 1984-529175	19840126
SU 1179924	A3	19850915	SU 1984-3699112	19840201
US 4696931	A	19870929	US 1985-728754	19850430

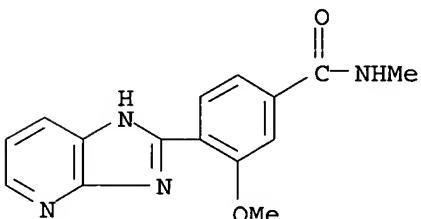
PRIORITY APPLN. INFO.: DE 1982-3224512 19820701  
                           US 1983-506454 19830621

OTHER SOURCE(S): CASREACT 100:139110

IT 89454-65-9P 89454-66-0P 89469-11-4P  
   RL: SPN (Synthetic preparation); PREP (Preparation)  
     (prepn. of)

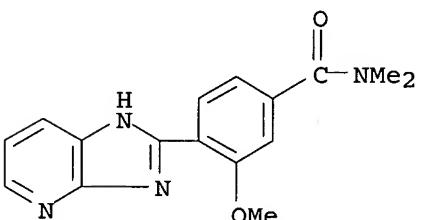
RN 89454-65-9 CAPLUS

CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy-N-methyl- (9CI)  
   (CA INDEX NAME)



RN 89454-66-0 CAPLUS

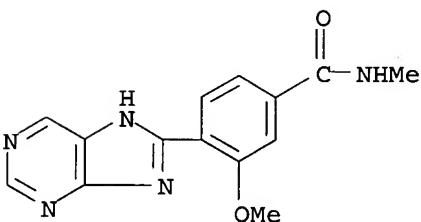
CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy-N,N-dimethyl-,  
   monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 89469-11-4 CAPLUS

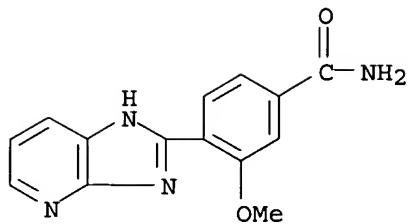
CN Benzamide, 3-methoxy-N-methyl-4-(1H-purin-8-yl)- (9CI) (CA INDEX NAME)



IT 89454-64-8P 89469-10-3P 89469-25-0P  
   RL: SPN (Synthetic preparation); PREP (Preparation)  
     (prepn., antihypertensive, and inotropic activity of)

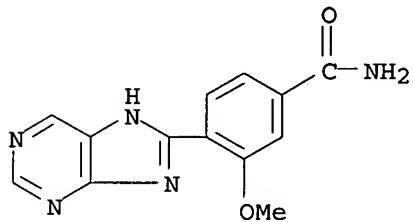
RN 89454-64-8 CAPLUS

CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy-, monohydrochloride  
   (9CI) (CA INDEX NAME)

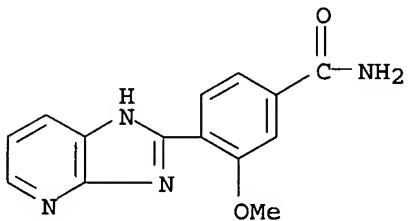


● HCl

RN 89469-10-3 CAPLUS  
CN Benzamide, 3-methoxy-4-(1H-purin-8-yl)- (9CI) (CA INDEX NAME)



RN 89469-25-0 CAPLUS  
CN Benzamide, 4-(1H-imidazo[4,5-b]pyridin-2-yl)-3-methoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 47 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB A series of copolymers contg. benzimidazole/benzamide, benzimidazole/benzimide, and benzimidazole/benzimidazolone repeat units were synthesized by condensation reactions and evaluated for their thermooxidative stabilities and solv. properties. Each copolymer exhibited the solv. characteristics of its least sol. component. Thus the benzimidazole/benzamides and the benzimidazole/benzimidazolones were insol. in Me<sub>2</sub>SO and AcNMe<sub>2</sub>. Relative stabilities to the early stages of thermooxidative degrdn. of the benzimidazole/benzamides and the benzimidazole/benzimide copolymers were compared by IR monitoring of isothermally aged (350.degree.) films. They ranged from comparable to slightly superior to benzimidazole homopolymer. Relative thermooxidative stabilities of the benzimidazole/benzimidazolone copolymer and the benzimidazole (PBI) and benzimidazolone (BBB) homopolymers were compared by similar monitoring of films cast from H<sub>2</sub>SO<sub>4</sub>. The PBI/BBB copolymer is comparable to but less stable than BBB homopolymer and considerably superior to PBI homopolymer.

ACCESSION NUMBER: 1980:586850 CAPLUS

DOCUMENT NUMBER: 93:186850

TITLE: Synthesis and thermooxidative properties of a series of benzimidazole copolymers

AUTHOR(S): Kane, J. J.; Lu, S. L.; Ghosh, S.; Bashe, J.; Conley, R. T.

CORPORATE SOURCE: Dep. Chem., Wright State Univ., Dayton, OH, 45435, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1978), 19(1), 660-7

CODEN: ACPPAY; ISSN: 0032-3934

DOCUMENT TYPE: Journal

LANGUAGE: English

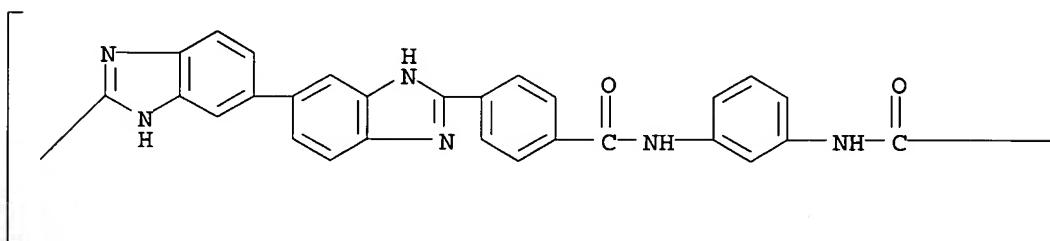
IT 75236-89-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and thermal oxidative properties of)

RN 75236-89-4 CAPLUS

CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,4-phenylenecarbonylimino-1,3-phenyleneiminocarbonyl-1,4-phenylene) (9CI) (CA INDEX NAME)

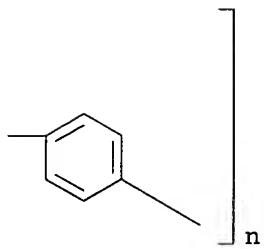
PAGE 1-A



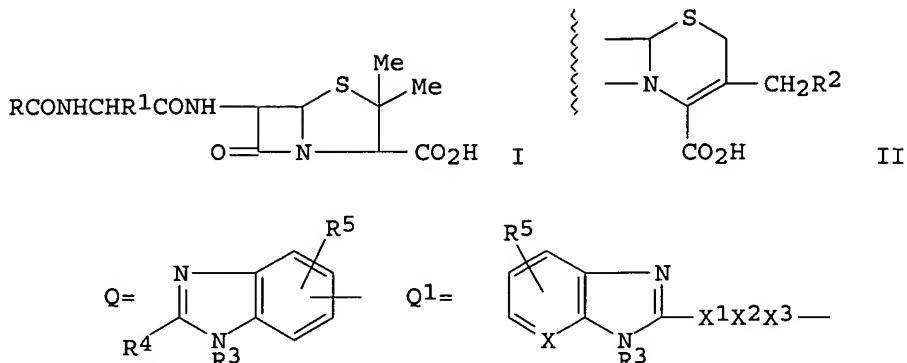
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PAGE 1-B



L4 ANSWER 48 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
GI



AB .beta.-Lactams I and II (R = Q, Q1; R<sup>1</sup> = optionally substituted Ph, monocyclic arom. heterocyclic, dihydrophenyl; R<sup>2</sup> = H, OAc, heterocyclithio; R<sup>3</sup> = H, lower alkyl; R<sup>4</sup> = H, optionally substituted alkyl, aryl, or heterocyclic; R<sup>5</sup> = H, halogen, lower alkyl, alkoxy; X = CH, N; X<sup>1</sup> = bond, CH<sub>2</sub>O; X<sup>2</sup> = bond, C<sub>6</sub>H<sub>4</sub>; X<sup>3</sup> = bond, lower alkylene, oxyalkylene) were prep'd. Thus, 3.5 g ampicillin was treated with 2.93 g 2-phenyl-5-benzimidazolecarbonyl chloride-HCl to give 4.2 g I (R = 2-phenyl-5-benzimidazolecarbonyl, R<sup>1</sup> = Ph).

ACCESSION NUMBER: 1978:424333 CAPLUS

DOCUMENT NUMBER: 89:24333

TITLE: .beta.-Lactam compounds

INVENTOR(S): Schorr, Manfred; Schrinner, Elmar; Worm, Manfred; Schmitt, Wilfried

PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 78 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

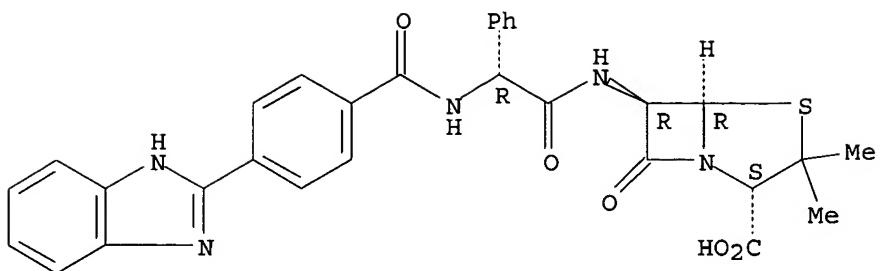
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2641060	A1	19780316	DE 1976-2641060	19760911
PRIORITY APPLN. INFO.:			DE 1976-2641060	19760911
IT 66631-31-0P 66631-82-1P				
RL: SPN (Synthetic preparation); PREP (Preparation)				
(prepn. of)				
RN 66631-31-0	CAPLUS			
CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[[4-(1H-benzimidazol-2-yl)benzoyl]amino]phenylacetyl]amino]-3,3-dimethyl-7-oxo-, monopotassium salt, [2S-[2.alpha.,5.alpha.,6.beta.(S*)]]- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.

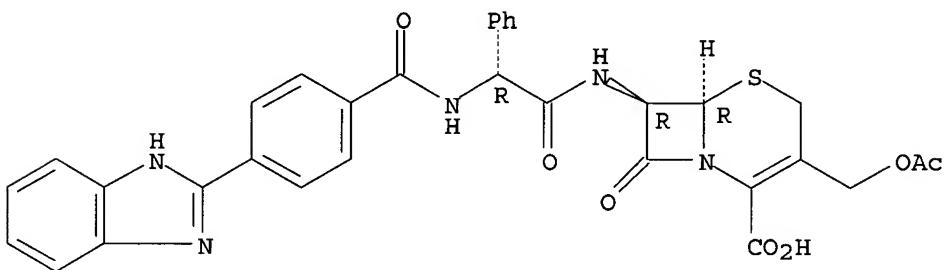


● K

RN 66631-82-1 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 3-[(acetyloxy)methyl]-7-[[[[4-(1H-benzimidazol-2-  
 yl)benzoyl]amino]phenylacetyl]amino]-8-oxo-, [6R-[6.alpha.,7.beta.(R\*)]]-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



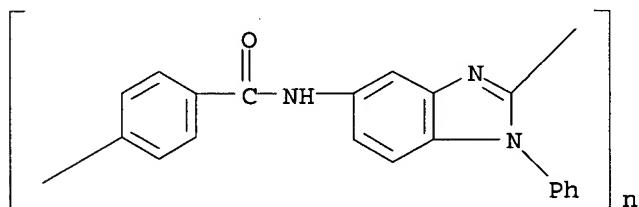
L4 ANSWER 49 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB Polymers for medical use (polyesters, polyamides, polyimides, poly(vinyl chloride) [9002-86-2] and silicone rubber) were implanted s.c. into dogs or were immersed in a buffer soln. (pH 7.4) at 37.degree. for 26 months. No changes were obsd. in both treatments as detd. by differential interference microscopy, x-ray diffractometry, viscometry and IR spectroscopy. However, some additives were released by the poly(vinyl chloride) preps.

ACCESSION NUMBER: 1977:444211 CAPLUS  
 DOCUMENT NUMBER: 87:44211  
 TITLE: Interaction between polymeric materials and tissue  
 AUTHOR(S): Kojima, Kohichi; Imai, Yohji; Masuhara, Eiichi  
 CORPORATE SOURCE: Inst. Med. Dent. Eng., Tokyo Med. Dent. Univ., Tokyo, Japan  
 SOURCE: Kobunshi Ronbunshu (1977), 34(4), 267-73  
 CODEN: KBRBA3; ISSN: 0386-2186  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese

IT 26615-36-1  
 RL: PRP (Properties)  
 (stability of, as prosthetics, in tissues)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene]  
 (9CI) (CA INDEX NAME)



L4 ANSWER 50 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB Polyoxadiazole fibers and films were manufd. by extruding a soln. of 2-15% resin in 75-110% H<sub>2</sub>SO<sub>4</sub> optionally contg. .gtoreq.1 inorg. salt into a coagulation bath contg. an aq. soln. of H<sub>2</sub>SO<sub>4</sub>, a lower aliphatic carboxylic acid, and(or) a mixt. of these acids with .gtoreq.1 inorg. acids and amide compds., washing the fibers or films with water and then contacting them with buffer soln., amine, amide, or a salt of a weak acid or a metal hydroxide. For example, a soln. of polyoxadiazole [26023-46-1] resin in fuming H<sub>2</sub>SO<sub>4</sub> (prep'd. by reacting terephthalic acid, and hydrazine sulfate, in fuming H<sub>2</sub>SO<sub>4</sub>) was dild. with 95% H<sub>2</sub>SO<sub>4</sub> at 80.degree. to obtain 4% soln. with a viscosity of 2500 P. The resin soln. was extruded into a 54% aq. soln. of H<sub>2</sub>SO<sub>4</sub> at 62.degree. and coagulated at a linear velocity of 5.5 m/min. The coagulated filament was treated in a water bath for 10 min, an aq. NaOH [141-43-5] soln., another water bath, and drawn 3 times its original length and dried. The resulting filaments had a fineness of 7.2 denier, tenacity 3.6 g/denier, breaking elongation 50% and a Young's modulus 72 g/denier. They showed no change in tenacity after heating at 350.degree. in air for 10 hr and at 200.degree. for 5000 hr.

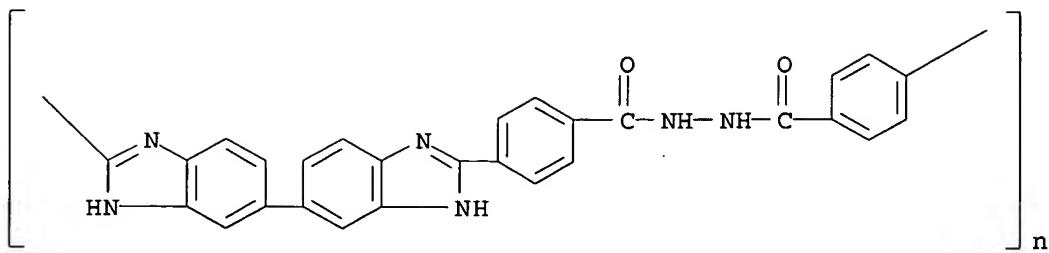
ACCESSION NUMBER: 1975:533210 CAPLUS  
 DOCUMENT NUMBER: 83:133210  
 TITLE: Forming polyoxadiazole series resin solution into shaped articles  
 INVENTOR(S): Sekiguchi, Hideo; Sadamitsu, Kazuo  
 PATENT ASSIGNEE(S): Furukawa Electric Co., Ltd., Japan  
 SOURCE: U.S., 12 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3886251	A	19750527	US 1973-393978	19730904
JP 52000062	B4	19770105	JP 1967-23982	19670415
JP 52021014	B4	19770608	JP 1967-23981	19670415
PRIORITY APPLN. INFO.:			JP 1967-22981	19670411
			JP 1967-22984	19670411
			JP 1967-23981	19670415
			JP 1967-23982	19670415
			US 1968-717961	19680401
			US 1972-313797	19721211

IT 29188-82-7P  
 RL: PREP (Preparation)  
 (fiber and films, gelled state treatment by buffer and basic compds. in manuf. of, for improved thermal stability)  
 RN 29188-82-7 CAPLUS  
 CN Poly[(5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,4-phenylene carbonylhydrazocarbonyl-1,4-phenylene) (9CI) (CA INDEX NAME)

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L4 ANSWER 51 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB Gelled, swollen polyoxadiazole fibers and films were made by successively contacting the cyclic arom. dicarboxylic acid-hydrazine deriv. copolymers with aq. H<sub>2</sub>SO<sub>4</sub>, water, aq. base or Mg salt, and water, so that the articles had good mech. strength and resistance to humidity. Thus hydrazine sulfate-4,4'-oxydibenzoinic acid copolymer [54547-58-9] (prepd. in the presence of H<sub>2</sub>SO<sub>4</sub>.SO<sub>3</sub>) was poured on a glass plate coagulated in aq. H<sub>2</sub>SO<sub>4</sub>, and contacted with aq. NaHCO<sub>3</sub> followed by water to give a swollen gelled film with elongation at break 124% and tensile strength 1.040 kg/cm<sup>2</sup>. The sample and one with the same mech. properties which had not been treated with aq. NaHCO<sub>3</sub> were heated 4 weeks at 180.degree. to give products with resp. elongation at break 48 and 16% and resp. tensile strength 1050 and 620 kg/cm<sup>2</sup>.

ACCESSION NUMBER: 1975:480629 CAPLUS

DOCUMENT NUMBER: 83:80629

TITLE: Poly(1,3,4-oxadiazole) resin articles

INVENTOR(S): Sekiguchi, Hideo; Sadamitsu, Kazuo; Oda, Junichiro; Hirasa, Katsuyoshi

PATENT ASSIGNEE(S): Furukawa Electric Co., Ltd., Japan

SOURCE: Fr. Demande, 27 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

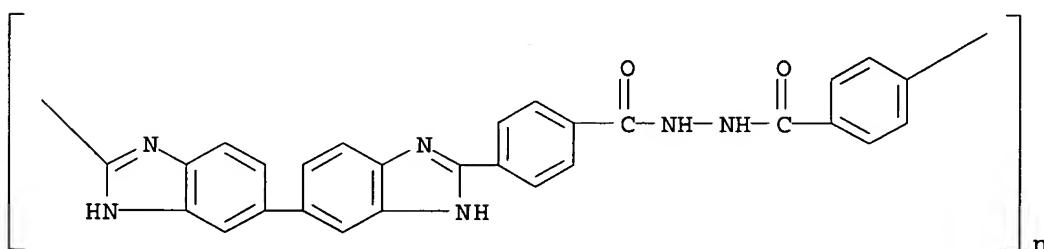
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2228809	A1	19741206	FR 1974-15775	19740507
FR 2228809	B1	19800425		
GB 1422177	A	19760121	GB 1973-21780	19730508
AU 7468136	A1	19751023	AU 1974-68136	19740422
IT 1017586	A	19770810	IT 1974-22419	19740508
PRIORITY APPLN. INFO.:			GB 1973-21780	19730508

IT 29188-82-7

RL: USES (Uses)  
 (fiber)

RN 29188-82-7 CAPLUS

CN Poly[(5,5'-bi-1H-benzimidazole)-2,2'-diyl-1,4-phenylene carbonylhydrazocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



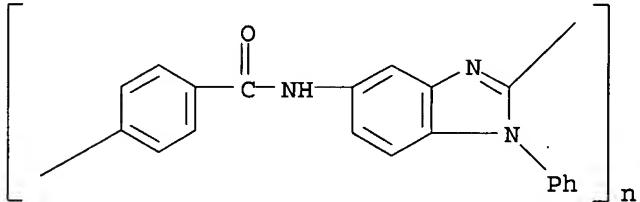
L4 ANSWER 52 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
AB The model reactions between phthalic anhydride (I) [85-44-9] and o-phenylenediamine (II) [95-54-5] were studied under conditions analogous to the polymn. and postcyclization of dianhydrides with bis(o-diamines) to form poly(imidazopyrrolone). Thus, I was condensed with II in DMF to give 80% N-(o-aminophenyl) phthalamic acid (III) [7297-65-6] which when stored in aq. DMF gave a 2:1 mixt. of N-(o-aminophenyl) phthalimide (IV) [4506-62-1] and 2-(o-carboxyphenyl) benzimidazole (V) [16529-06-9]. Sublimation of IV at 200.deg. gave 11H-isoindolo[2,1.alpha.]benzimidazol-11-one (VI). O-phenylenebibenzimidazole and N,N'-diphthaloyl-o-phenylenediamine were obtained as by-products of the melt reaction of I and II. When 10% III in DMF was heated at 152-4.deg. it gave IV and V. When III was melted at 155.deg. it gave 36% V, 19% VI, and a benzimidazole-amide-imide (VII) [35411-16-6]. The IR spectra of the model compds. are given.

ACCESSION NUMBER: 1972:448851 CAPLUS  
DOCUMENT NUMBER: 77:48851  
TITLE: Poly(imidazopyrrolone) model compounds  
AUTHOR(S): Young, Philip R.  
CORPORATE SOURCE: Langley Res. Cent., NASA, Hampton, VA, USA  
SOURCE: Journal of Heterocyclic Chemistry (1972), 9(2), 371-8  
CODEN: JHTCAD; ISSN: 0022-152X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L4 ANSWER 53 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB Poly(amide amines) (I) are ring-closed by the heat treatment to give heat-resistant polybenzimidazoles (II), which are sol. in polar org. solvents and useful as fibers and films. E.g., 2.72 g 2,4-diaminodiphenylamine-2HCl, 4.24 g Na<sub>2</sub>CO<sub>3</sub>, 50 ml H<sub>2</sub>O, and 42 ml THF (III) are stirred rapidly in a blender and the soln. is mixed with 2.03 g terephthaloyl chloride in 17 ml III and stirred 10 hr to give I (yellow powder), which is heated 6 hr at 300.degree. in vacuo to give II, which is sol. in HCO<sub>2</sub>H, dichloroacetic acid, and m-cresol, and shows thermal stability at .ltoreq.430.degree..

ACCESSION NUMBER: 1970:488408 CAPLUS  
 DOCUMENT NUMBER: 73:88408  
 TITLE: Manufacturing polybenzimidazoles  
 INVENTOR(S): Hara, Shigeyoshi; Seo, Masao; Uchida, Moriya  
 PATENT ASSIGNEE(S): Teijin Ltd.  
 SOURCE: Jpn. Tokkyo Koho, 4 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

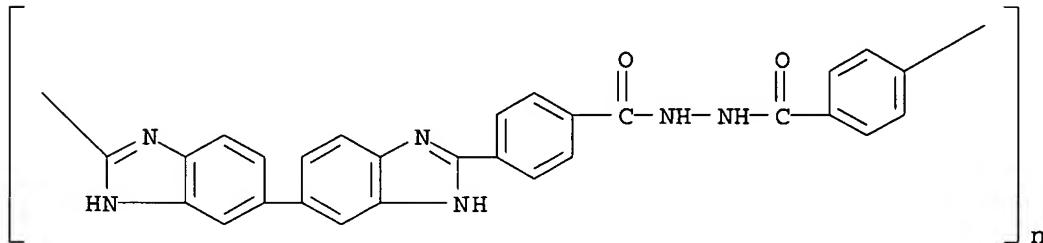
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 45022555	B4	19700730	JP	19671019
IT	<b>26615-36-1P</b>				
	RL: PREP (Preparation)				
	(prepn. of)				
RN	26615-36-1 CAPLUS				
CN	Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)				



L4 ANSWER 54 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 AB A poly(oxadiazole) prep'd. from terephthalic acid and hydrazine sulfate in fuming H<sub>2</sub>SO<sub>4</sub> is treated with iso-Pr<sub>2</sub>SO<sub>4</sub>, PrOH, Et<sub>2</sub>SO<sub>4</sub>, propylene, or a similar compd. in H<sub>2</sub>SO<sub>4</sub> to form N-alkylhydrazide units in the polymer chains. These modified polymers exhibit good solv. in org. solvents and are fusible, making them easier to handle than the untreated, infusible, insol. poly(oxadiazoles). After molding or extrusion, the modified polymers are heated (>200.degree.) to form oxadiazole rings from the N-alkylhydrazide units and are used in laminates.

ACCESSION NUMBER: 1970:467218 CAPLUS  
 DOCUMENT NUMBER: 73:67218  
 TITLE: Stable high temperature resins with N-alkylhydrazide structural units  
 INVENTOR(S): Sekiguchi, Hideo; Sadamitsu, Kazuo  
 PATENT ASSIGNEE(S): Furukawa Electric Co., Ltd.  
 SOURCE: Ger. Offen., 33 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1902591		19700702		
PRIORITY APPLN. INFO.:			JP	19680122
IT 29188-82-7				
RL: USES (Uses)				
(polyoxadiazoles from, conversion to poly(alkylhydrazides) for processing and regeneration of polyoxadiazoles)				
RN 29188-82-7	CAPLUS			
CN Poly[(5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,4-phenylene carbonylhydrazocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)				



L4 ANSWER 55 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 GI For diagram(s), see printed CA Issue.  
 AB Title compds. having the general formula I are prep'd. by condensing (COCl)<sub>2</sub> with 1-aminoanthraquinone (II) or substituted II to form the monoamide, which is then condensed with 1,2-diaminoanthraquinone (III) or substituted III. Thus, 8 parts finely powd. II was slowly added to stirred mixt. of p-C<sub>6</sub>H<sub>4</sub>(COCl)<sub>2</sub> (IV) and 80 parts dry PhNO<sub>2</sub> at 80.degree., the mixt. held at 95-100.degree. until no II could be detected (.apprx.2 hrs.), chilled, filtered, and washed with PhNO<sub>2</sub> to give 1-[p-(chlorocarbonyl)-benzamido]anthraquinone (V), yellow crystals. To a soln. of 3.6 parts III in 100 parts dry PhNO<sub>2</sub> at 120.degree. was added 0.5 part dry pyridine and 5.9 parts V, the mixt. heated in 40 min. to 180-90.degree., and stirred for 1 hr. at 180-90.degree. and for 1 hr. at 200-10.degree. to give I (X = p-C<sub>6</sub>H<sub>4</sub>, Y = Z = H), fine needles, greenish yellow on cotton. Similarly, other I were prep'd. (X, Y, Z, and shade on cotton given): 2,5,1,4-C<sub>12</sub>C<sub>6</sub>H<sub>2</sub>, H, H, orange; p-C<sub>6</sub>H<sub>4</sub>, H, NHCOC<sub>6</sub>H<sub>4</sub>COCl, orange; p-C<sub>6</sub>H<sub>4</sub>, H, OMe, orange; 2,5-thiophenediyl, H, H, yellow; 4-C<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>-4, H, H, yellow; p-C<sub>6</sub>H<sub>4</sub>, Br, H, yellow; 2,5-pyridinediyl, H, H, greenish yellow. Similarly, VI and III gave a green dye.

ACCESSION NUMBER: 1966:491179 CAPLUS

DOCUMENT NUMBER: 65:91179

ORIGINAL REFERENCE NO.: 65:17096a-d

TITLE: Anthraquinone-imidazole vat dyes

PATENT ASSIGNEE(S): CIBA Ltd.

SOURCE: 19 pp.

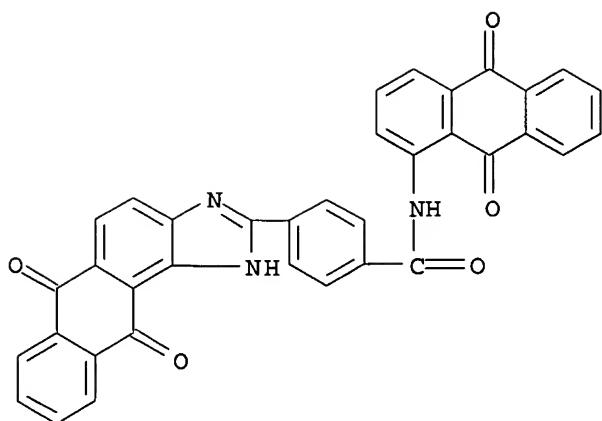
DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

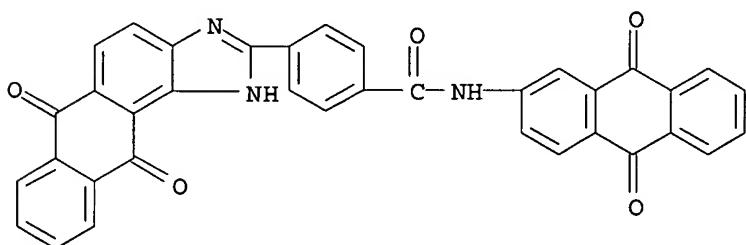
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	BE 668789	-----	19660225	BE	-----
PRIORITY APPLN. INFO.:			CH		19640826
IT	10252-08-1, 1H-Anthra[1,2-d]imidazole-6,11-dione, 2-[p-(1-anthraquinonylcarbamoyl)phenyl]- 10252-24-1, 1H-Anthra[1,2-d]imidazole-6,11-dione, 2-[p-(2-anthraquinonylcarbamoyl)phenyl]- 13018-02-5, 1H-Anthra[1,2-d]imidazole-6,11-dione, 2-[4-(1-anthraquinonylcarbamoyl)-2,5-dichlorophenyl]- (prepn. of)				
RN	10252-08-1	CAPLUS			
CN	Benzamide, N-(9,10-dihydro-9,10-dioxo-1-anthracyaryl)-4-(6,11-dihydro-6,11-dioxo-1H-anthra[1,2-d]imidazol-2-yl)- (9CI) (CA INDEX NAME)				



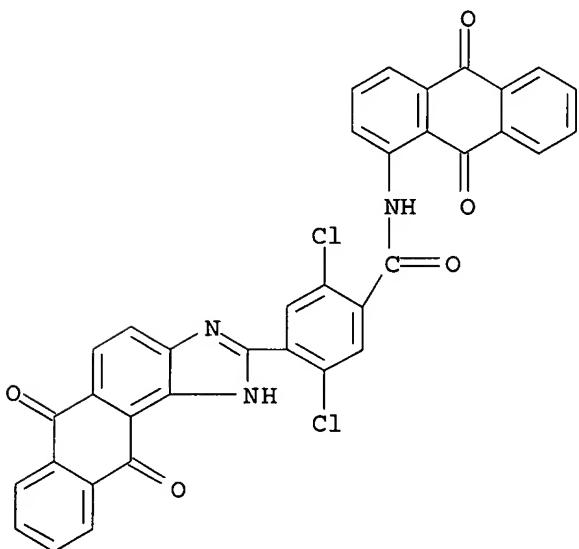
RN 10252-24-1 CAPLUS

CN Benzamide, N-(9,10-dihydro-9,10-dioxo-2-anthracyl)-4-(6,11-dihydro-6,11-dioxo-1H-anthra[1,2-d]imidazol-2-yl) - (9CI) (CA INDEX NAME)



RN 13018-02-5 CAPLUS

CN 1H-Anthra[1,2-d]imidazole-6,11-dione, 2-[4-(1-anthraquinonylcarbamoyl)-2,5-dichlorophenyl]- (7CI, 8CI) (CA INDEX NAME)



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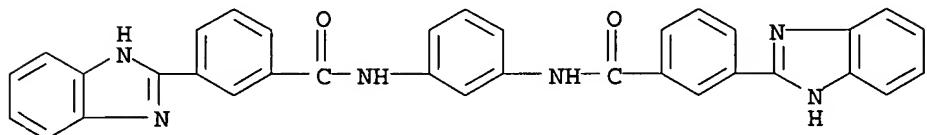
L4 ANSWER 56 OF 56 CAPLUS COPYRIGHT 2003 ACS on STN  
 GI For diagram(s), see printed CA Issue.  
 AB cf. CA 62, 13253a; 63, 4405f. One mole PhOH in 80 ml. C5H5N was added dropwise to 1.1 mole isophthaloyl chloride (I) in 800 ml. anhyd. C6H6, refluxed for 2 hrs., filtered, the ppt. treated with 500 ml. boiling C6H6, filtered and the 2 filtrates combined and evapd. The residue was fractionally distd. to give a 38% yield of Ph m-chloroformylbenzoate (II), b0.5 162.degree., m. 69-70.degree.. Bis[4-(phenoxy carbonyl)-phenyl]-N,N'-isophthalamide (III), m. 301.degree., was prep'd. in 60% yield by adding 0.015 mole I in 20 ml. AcNMe2 to 0.03 mole Ph p-aminobenzoate (IV), 9 ml. Et3N, and 60 ml. AcNMe2 at -15.degree., stirring 10 min. at -15.degree. and 45 min. at room temp., filtering the ppt. of Et3N.HCl, pptg. III from the filtrate with 500 ml. H2O, drying, and recrystg. from a mixt. of EtOH and HCONMe2. Similarly, bis(3-phenoxy carbonylphenyl)-N,N'-isophthalamide (V), m. 219.degree., bis[N-(4-phenoxy carbonylphenyl)-4-carbamoylphenyl]ether, m. 325.degree., and bis[N-(3-phenoxy carbonylphenyl)-4-carbamoylphenyl]ether, m. 199.degree., were prep'd. from I and Ph m-aminobenzoate (VI), bis(4-chloroformylphenyl) ether (VII), and IV, and VI and VII, resp. VII, m. 81.degree., was prep'd. by the method of Bosshard (CA 54, 3296b). Likewise, 1,3-bis(3-phenoxy carbonylbenzoylamino)benzene (VIII), m. 253.degree., and bis[4-(3-phenoxy carbonylbenzoylamino)phenyl]ether (IX), m. 283.degree., were prep'd. in 65% yield by recrystn. from PhNO2 by the condensation of m-phenylenediamine (X) and II, and 4,4'-diaminodiphenyl ether (XI) and II, resp. The melting together of 1 g. VIII and 1 g. o-phenylenediamine (XII) in vacuo for 45 min. at 250.degree. and 1 hr. at 300.degree., washing of the product with Et2O, treatment with boiling PhNO2, and washing again with Et2O, gave a 46% yield of m-bis[3-(2-benzimidazolyl)benzoylamino]benzene, m. 357.degree.. Similarly, bis[4-[3-(2-benzimidazolyl)benzoylamino]phenyl]ether, m. 391.degree., was obtained in 47% yield by recrystn. from HOAc from 2.16 g. IX and 1.5 g. XII. Polymers XIII-XV were prep'd. XIII was prep'd. by melting together 1.853 g. (XV) VIII and 0.71 g. 3,3'-diaminobenzidine (XVI) at 300.degree. and heating for 5 hrs. at 300-400.degree.. Similarly, XIV was prep'd. from 2.16 g. IX and 0.71 g. XVI, and XV from 4.77 g. V and 1.83 g. XVI. XIII was also prep'd. by dissolving 4.77 g. VIII in 15 ml. Me2SO at 120-70.degree. in an inert atm., adding 1.83 g. XVI, refluxing at 180-200.degree. for 2.25 hrs., distg. the solvent, and heating the residue for 1 hr. at 250-300.degree., and then in vacuo at 300-80.degree. for 3.5 hrs. Inherent viscosity at 0.5% in concd. H2SO4 at 30.degree. was 0.24, 0.19, and 0.20 for XIII, XIV, and XV, resp. The ir and uv spectra showed the disappearance of the CO and ester groups, and the appearance of the benzimidazole group. Similar unordered polymers were obtained by melting together Ph isophthalate, PhOLi, and XVI with either X or XI and heating in vacuo at 300-400.degree.. In thermal stability testing at a 60.degree./hr. temp. rise, all 3 polymers showed a start of wt. loss in Ar and air at 400.degree., reaching 10 and 25-50% loss at 500.degree. in Ar and air, resp.

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(prep. of)

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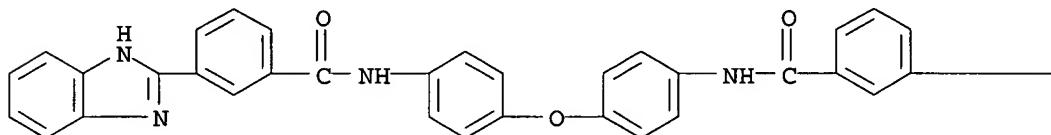
CN Benzamide, N,N'-m-phenylenebis[3-(2-benzimidazolyl)- (7CI, 8CI) (CA INDEX  
NAME)



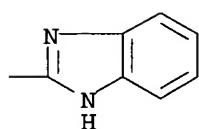
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CN Benzamide, N,N'-(oxydi-p-phenylene)bis[3-(2-benzimidazolyl)- (7CI, 8CI)  
(CA INDEX NAME)

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FILE 'REGISTRY' ENTERED AT 09:43:33 ON 31 JUL 2003

L1                   STRUCTURE UPLOADED  
L2                   7 S L1  
L3                   907 S L1 FUL

FILE 'CAPLUS' ENTERED AT 09:47:11 ON 31 JUL 2003

L4                   56 S L3

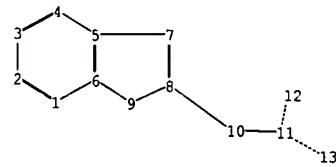
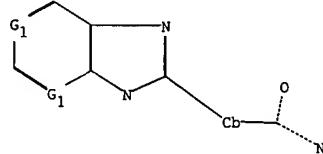
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chain nodes :

10 11 12

ring nodes :

1 2 3 4 5 6 7 8 9

ring/chain nodes :

13

chain bonds :

8-10 10-11 11-12 11-13

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 8-10 10-11 11-12 11-13

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS  
12:CLASS 13:CLASS